

## Research article

# Impact of COVID-19 on Cross-cultural Learning from Malaysia-to-Japan Research Exchange

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Outbound research exchange program to Japanese Higher Education Institutes is very popular among Malaysian researchers. During the exchange program, bilateral cultural learning occurs between researchers from Malaysia and Japan. Mutual cultural understanding accelerates the respect for foreign cultures and enables cultural diversity to flourish in the globalized world. However, the COVID-19 outbreak has shattered the traditional cultural learning paradigm. This study analyzes the cultural components of the Japanese exchange program disrupted by the pandemic. A survey with a Likert scale of 1 to 5 was conducted to investigate the disruption of continuous cultural learning in terms of lifestyle, language, social value, and trends experienced by Malaysian researchers after the pandemic. The results show that the Japanese social values are influencing Malaysian researchers and the disruption caused by the pandemic is significant ( $p < 0.001$ ). Although researchers were motivated to learn the Japanese language during their exchange trips ( $\mu = 4.41$ ), the motivation lost momentum after the researchers returned ( $\mu = 2.96$ ) and remains weak post the COVID-19 outbreak ( $\mu = 3.06$ ). This is the very first study that provides insights into the redevelopment of cultural learning through Japanese exchange programs in the post-COVID-19 era.

**Keywords:** research exchange program, cultural learning, COVID-19 pandemic, tertiary education

## 1. Introduction

The “Look East Policy” initiative introduced by Malaysian government in 1980s has send a large number of Malaysian students to study at Japanese universities and institutes of technology [1]. The initiative aimed to foster the cultural, social and knowledge learning from the Japanese’ success transformation model when the students were staying there and eventually, contributed to the national scientific and technological development when they back to Malaysia.

Since, the number of students studied at Japanese universities and institutes of technology has been increasing steadily. Most of graduates would return to the country

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and employed by Malaysian universities as lecturers or researchers. Because there are substantial population of Japan-related graduates and/or visiting researchers, alumni associations such as Japan Graduates' Association of Malaysia (JAGAM), Alumni Look East Policy Society (ALEPS), JSPS Alumni Association Malaysia (JAAM), Malaysia Alumni of Sakura Science Association (MASSA), and Japan International Cooperation Agency Alumni Society of Malaysia (myJICA) were established to strengthen networking and promote information dissemination among their members.

Meanwhile, Japanese funding agencies have been playing vital roles in introducing mobility programs and grants to support various continuous bilateral exchange programs. Notably, Japan Society for the Promotion of Science (JSPS) and Japan Science and Technology (JST) Agency have offered various exchange research programs to researchers and students from Asian countries including Malaysia. Through the exchange process, mutual cultural understanding occur consistently between both countries [2]. In Malaysia, many researchers have participated actively along with their students in these exchange programs every year and benefited culturally and intellectually from the programs.

Due to the COVID-19 outbreak in early 2020, however, cross border travel is prohibited and outbound mobility programs have been postponed until further notice or shifted to online platform. Until now, the world still struggles to contain the outbreak. There is no sight the exchange programs can resume anytime soon. As a result, the pandemic has halted the traditional paradigm of cultural and research values exchange. It is unprecedented and the long term impact brought by the pandemic is profound. Nevertheless, this impact on continuous cultural learning induced during and after the Japanese exchange programs has never been investigated.

Given the large amount of investment involved and high importance of these exchange programs, there is an urgent need to gain insight about the disruption on elements of cultural exchange introduced by the COVID-19 pandemic. Specifically, the information will be crucial for the successful redevelopment of future Malaysia-to-Japan exchange programs given the long history of bilateral relationship between both nations. In this study, the disruption on continuous cultural learning experienced by Malaysian researchers and students who had joined Japan exchange programs has been measured by conducting a survey.

## 2. Literature Review

Currently, several exchange programs under the support of Japanese funding agencies are commonly available to Malaysian researchers and students. These exchange programs usually require Malaysian researchers to approach Japanese hosts by themselves. The length of exchange varies according to the type of exchange program. During the program, researchers would engage in direct discussion and work together on research projects with their Japanese hosts and students. The interaction between both teams enable cultural understanding to flourish implicitly.

### 2.1. Sakura Science Exchange Program

Sakura Science Exchange (SSE) program is managed by the Japan Science and Technology Agency (JST). Their programs aim to pursue interaction in science and technology as well as Japanese culture by inviting overseas researchers and their students to visit the Japanese host universities for a short period ranged from one to three weeks. In Malaysia, university researchers with their students can join via open application programs and there are some direct invitation programs for high school students. Despite the period of exchange is relatively short, a lot of Malaysian researchers have benefited from the SSE by building their international network, discussing collaborative plans and research outputs [3], as well as experiencing the Japanese culture through the program. Participants of SSE are eligible to join as the alumni members of MASSA once they have completed the program.

### 2.2. Japan Society for the Promotion of Science (JSPS)

Japan Society for the Promotion of Science (JSPS) is an independent administrative institution established to promote the advancement of science in Japan. There are numerous types of research initiatives that are supported by JSPS to encourage international scientific collaborations. These initiatives come in the form of trainings, grants and fellowships. In Malaysia, researchers joined the postdoctoral and invitational fellowships and stayed in Japan from a period of a few months to a few years to carry out their research projects. Even though JSPS's programs focus mainly on scientific advancement, Malaysian researchers would be able to experience the Japanese local lifestyle due to their long stays at Japan. The researchers are eligible to register as the member of JAAM once they have completed their fellowships.

## 2.3. Cultural Components

Japanese culture is unique. The nation has its own language, tradition and social values. For example, Japanese writing system consists of *Kanji*, *Hiragana* and *Katagana*, Japanese food such as *Ramen* and *Sushi* has been common in local daily lives while Japanese social values are influenced by politeness and custom virtues. Meanwhile, Malaysia is rich of cultural diversity. During the exchange program, these differences has accelerated cultural learning from various aspects. We have categorized these aspects into lifestyle, language, social values and trends.

Lifestyle [4] is an important aspect to understand the cultural difference between Japan and Malaysia. Intuitively, Japan has a homogenous society while Malaysia is a multiracial nation. As a result, both countries have distinct daily lifestyle practice, religion, food and interaction. In addition, the living environment of both populations are difference. These diversities have produced different cultural identities [5] among Japanese and Malaysian, which ignites culture understanding when Malaysian researchers visit their Japanese hosts.

Language [6,7] is the second aspect to reflect the cultural diversity between both countries. Most Malaysians use English and Bahasa Melayu as the medium of communication while there are other languages such as Mandarin and Indian being spoken by other ethnics in their daily lives. The linguistic landscape in Malaysia is mixed and special. On the other hand, Japanese is almost exclusively conversed in Japan. Hence, overseas experience staying in Japan would represent a good cultural learning for Malaysians.

Social value [8] is the third aspect to indicate the cultural difference between Japan and Malaysia. Because Malaysia is multi-ethnic, there is a diversity of social values being practised by each race, notable Malay, Chinese and Indian. The rich of social values prompt each ethnic to respect each other in order to coexist harmoniously. On the other hand, Japanese social value inherits the traditional paradigm influenced by philosophy, Confucianism and etc. Furthermore, there are great emphases on politeness, hardworking, dedication and accountability, which is less observed in Malaysia.

Trends [9] is the fourth aspect to assess the cultural difference between Japan and Malaysia. For instance, Japanese trends have substantial influence in global stage. These trends come from fashion, entertainment, sports, music, technology and merchant products. Attribute to globalization effect, the presence of Japanese trend can be

easily found in Malaysia and accepted by the population. In fact, there is a growing number of Japanese merchant shops in Malaysia, especially Kuala Lumpur and Selangor, as the quality of lives improves.

### 3. Research Methodology

This section will describe the research objectives, questionnaire design and survey conduct used in this study.

#### 3.1. Research Objectives

The study is proposed to explore the overseas experience by Malaysian researchers and students during their stay in Japan. It also aims to investigate the positive and negative of the impression when they had the opportunity to visit Japan. Then, we further analysed the continuous cultural learning after they returned to Malaysia as well as the impact of disruption on continuous cultural learning experienced by Malaysian researchers and students after the COVID-19 outbreak. According to our knowledge, this is the first ever study to analyse the impact of COVID-19 pandemic on cultural learning nurtured through exchange programs.

#### 3.2. Questionnaire Design

The questionnaire consists of 36 questions within 3 sections as follows: (1) Overseas experience from exchange program; (2) Continuous cultural learning after exchange program; and (3) Disruption to continuous cultural learning after COVID-19 outbreak. The questionnaire also contained a set of identification information, including the education degree of respondents; field of study of respondents, Japanese host university/institute of respondents and the frequency of participation of respondents. This information would help to identify the respondents' major and provide guidance to data analysis.

*Section 1 - Overseas experience from exchange program:* Due to the distinct cultural difference between Japan and Malaysia, we hypothesized that Malaysian researchers and students would benefit from the exposure of cultural learning during the program and have positive overseas experience when they back from Japan [10].

*Section 2 - Continuous cultural learning after exchange program:* Malaysian researchers and students would be impressed and interested in Japanese culture and would continue to be influenced by Japanese culture even after they returned to

Malaysia. These cultural influences can be categorized into lifestyle, language, social values and trend aspects [11].

*Section 3 - Disruption to continuous cultural learning after COVID-19 outbreak:* The COVID-19 outbreak has disrupted the conventional way of lives globally. Since the pandemic has interrupted all exchange programs [12] and subsequently discontinued the physical exposure to Japanese culture, we hypothesized there are significant level of disruption to all cultural learning aspects.

### 3.3. Survey Conduct

Survey data were collected to assess the cultural influence of cultural understanding before COVID-19 outbreak and the disruption after the outbreak. Under the support of Toshiba International Foundation (TIFO) and help from JST and MASSA, we have received a total of  $N = 93$  completed questionnaires among Malaysian researchers and students who had joined various Japan-related exchange programs such as JSPS fellowship programs, SSE, Japan Student Service Organization (JASSO) exchange program as well as university research attachment and sabbatical before the COVID-19 pandemic happened. The respondents' age ranged from 22 to 45 years old and came from various engineering and science courses. All participants have given their consents to this study.

## 4. Result analysis

This section will explain the data analysis approach and discuss the result findings based on statistical analysis by using SPSS (IBM, Armonk, NY, US).

### 4.1. Data Analysis Approach

We used three questions in the questionnaire to represent each component of analysis. These components include impression before exchange and overseas experience after exchange of Section (1) (12 questions), lifestyle, language, social values and trends learning after back to Malaysia of Section (2) (12 questions) and lifestyle, language, social values and trends learning disruption due to COVID-19 pandemic of Section (3) (12 questions). Each question has a Likert scale from 1 (Strongly Disagree) to 5 (Strongly Agree). Higher score would indicate stronger effect/more positive experience.

Prior to the result analysis, correlation test was performed to affirm the validity and reliability of survey questions ( $p < 0.01$ ). Then, we conducted descriptive analysis to comprehend the statistical behaviour of survey data and multivariate test to examine the associations of components in this study. Lastly, we computed univariate pairwise comparison to confirm the effect significance of disturbance ( $p < 0.05$ ).

## 4.2. Result Findings and Discussion

Table 1 shows the results of descriptive analysis where Experience\_B denotes the overseas impression before the respondents joined the Japan exchange program, Experience\_A denotes the overseas experience after the respondents returned to Malaysia, Culture\_A denotes the impression about the cultural experience before the exchange program, Culture\_B denotes the cultural experience after the exchange program, Lifestyle\_R denotes the first continuous cultural learning component (lifestyle) after the respondents returned to Malaysia, Lifestyle\_C denotes the first disrupted cultural learning component (lifestyle) after the COVID-19 outbreak, Language\_R denotes the second continuous cultural learning component (language) after the respondents returned to Malaysia, Language\_C denotes the second disrupted cultural learning component (language) after the COVID-19 outbreak, Social\_R denotes the third continuous cultural learning component (social values) after the respondents returned to Malaysia, Social\_C denotes the third disrupted cultural learning component (social values) after the COVID-19 outbreak, Trends\_R denotes the fourth continuous cultural learning component (trends) after the respondents returned to Malaysia and Trends\_C denotes the fourth disrupted cultural learning component (trends) after the COVID-19 outbreak.

Based on the descriptive analysis (Wilks' Lambda Sig.  $< 0.001$ , Partial Eta Squared = 0.417, Observed Power = 1.000), we can observe the respondents were experiencing positive experience after they joined the Japan exchange program ( $4.53 \pm 0.56$ ). The positive experience can be attributed to a variety of factors such as comfortable stay, friendly environment at host university, sufficient financial supports, interesting encounters and safe environment. Based on the information provided by survey, we noticed most respondents visited universities located at urban areas such as Tokyo, Osaka and Kyoto. Therefore, the convenience of urban lifestyle during the visit can also contribute to pleasant experience by Malaysian respondents. Specifically, 85% of the respondents would travel to Japan again if the exchange program was available.

TABLE 1: Averaged survey scores for all components of this survey.

Components	Mean±SD	N
Experience_B	4.35±0.55	93
Experience_A	4.53±0.56	93
Culture_B	4.34±0.46	93
Culture_A	4.45±0.47	93
Lifestyle_R	4.01±0.60	93
Lifestyle_C	4.02±0.61	93
Language_R	2.96±1.06	93
Language_C	3.05±0.98	93
Social_R	3.91±0.65	93
Social_C	4.30±0.51	93
Trends_R	4.06±0.68	93
Trends_C	4.28±0.47	93

Meanwhile, most respondents have positive impression toward Japanese cultural experience before the exchange program (4.34±0.46). The cultural learning experience improved after the respondents joined the program (4.45±0.47). The findings confirmed the role of research exchange program in enabling cultural learning [13] among Malaysian researchers and students. Moreover, Malaysia has a multi-ethnic society, it is easier for Malaysian to adopt foreign culture. As such, 95.7% of the respondents were able to experience the cultural difference between Japan and Malaysia during the exchange.

Further, we also noticed the effect cultural learning continued after the respondents returned from their exchanges. These can be affirmed by looking into the lifestyle (4.01±0.60), social values (4.30±0.51) and trends (4.06±0.68). However, interest in Japanese language learning faltered (2.96±1.06) after the respondents back to Malaysia. The findings was in sharp contrast to high momentum demonstrated by respondents before they went to exchange where 91.4% of the respondents indicated they were interested in Japanese language. Intuitively, there could be various reasons that lead to the loss of momentum in Japanese language after the exchange such as busy working schedule, the absence of Japanese speaking environment in Malaysia and the lack of Japanese language learning initiative in Malaysia.

The COVID-19 pandemic has literally transformed our current lifestyles. Due to safety concern, most physical activities have been replaced by online platforms or webinars [14]. The disruption to cultural learning can be seen from the perspective of lifestyle (4.02±0.61), language (3.05±0.98), social values (4.30±0.51) and trends (4.28±0.47). Likewise, we assume the disruption impact on language is minimal given that the loss



of momentum in this cultural component has occurred after the respondents went back to Malaysia.

TABLE 2: Pairwise comparisons of cultural components before and after the COVID-19 outbreak ( $p < 0.05$ ).

Components	Mean Difference	Std. Error	Sig.
Lifestyle	-0.014	0.090	1.000
Language	-0.093	0.124	1.000
Social values	-0.384	0.088	<0.001
Trends	-0.219	0.072	0.087

Table 2 shows the pairwise comparison between the disruption effect on cultural learning before and after the COVID-19 outbreak in Malaysia (Greenhouse-Geisser sig. < 0.001, Partial Eta Squared = 0.149, Observed Power = 1.000). Based on the results, we can deduce the disruption effect to social value learning is significant ( $p < 0.001$ ). Surprisingly, we did not find similar significance in lifestyle ( $p = 1.000$ ) and trends ( $p = 0.087$ ). Therefore, we can deduce social value is the cultural learning component which is significantly affected by COVID-19 pandemic. We can understand the disturbance is deep given that learning of social values require physical exposure to the Japanese environment to observe the practice of values. On the other hand, the insignificant effect demonstrated by lifestyle component can be comprehended in such a way that the movement control order (MCO) has totally changed Malaysians pre-COVID way of lifestyle, and Malaysians are exhausted with the long-time movement restriction. The disruption effect of trends in post COVID-19 times is insignificant due to the obsession with unpredictable COVID-19 pandemic situation in Malaysia. Instead of cultural trends, the people is more concerned with the unpredictable treacherous COVID-19 situation faced by the country now.

We have expected the disturbance effect brought by COVID-19 pandemic onto the language would be insignificant given that the momentum to learn Japanese language further decreased after the respondents went back to Malaysia. Through the survey, we have observed interesting aspect about the language component. Despite the respondents have reported to be positively interested in Japanese language before ( $\mu = 4.38$ ) and after ( $\mu = 4.41$ ) they back from the exchange (Section 1), the spirit of learning Japanese language vanished along with time ( $\mu = 2.96$ ) (Section 2). We deduce the Malaysian researchers and students lack the dedication to master the Japanese language due to hectic working lives, as well as the fact that most Japanese host researchers can speak English with the visiting researchers during the exchange program. Thus, there is no sense of determination to learn the Japanese

language consistently among the Malaysian respondents although we noticed that most respondents (82.8%) were aware of the need to learn Japanese language ( $\mu = 4.34$ ) in order to build strong long term collaboration with their respective Japanese collaborators. To our best knowledge, assessment of cultural competency in terms of foreign language mastery has seldom being addressed before. Given that language is an effective tool of cultural learning, some initiatives worth to be explored in the future in order to promote consistent enthusiasm of learning Japanese language among Malaysian researchers and students. Moreover, mastery of foreign language will be an advantage to their career path development too.

## 5. Conclusion

This is the first study on the impact of Japan exchange programs on Malaysian researchers and students in terms of overseas experience and cultural learning. In addition, we have studied the effect of disturbance on continuous cultural learning caused by the outbreak of COVID-19 in Malaysia. Our findings have suggested that the significant disturbance can be observe in the continuous learning of Japanese social values, which is irreplaceable by online platforms. In addition, we have also observed interesting patterns of Japanese language learning enthusiasm among Malaysian respondents. In future, more concrete studies need to be conducted to further analyse the pattern and suggest useful initiatives to nurture long term dedication in learning Japanese language.

## Authors' Contributions

HSG: Study implementation, Result analysis and Publication writing.

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