Motivation, Media Usage, and Intercultural Adaptation during the COVID-19 Pandemic: Comparing International Students from Mainland China and Others[1]

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Abstract

This study aims to clarify the relationship between international students' (ISs') motivation (integrative and instrumental), media usage, and intercultural adaptation (sociocultural and academic) during the COVID-19 pandemic by comparing their social support networks (SSNs) with the Japanese language speakers (JLSs), same-language speaker (SLSs), and other-language speaker (OLSs), and whether there are any differences or similarities between ISs from mainland China (MCISs) and other ISs in these relationships. An online survey targeting ISs enrolled at universities in Japan was conducted from November 19 to December 10, 2021. The data from 364 ISs, including 160 MCISs and 200 other ISs, were analyzed. The results indicated that MCISs with higher levels of Japanese language proficiency and integrative motivation, a longer length of stay in Japan, and who mainly chose Japanese to take a course, were able to form larger SSNs with JLSs; this helped them receive more social support from JLSs which had mediating effects on improving their sociocultural and academic adaptations. On the other hand, it was found that in terms of other ISs—those with lower levels of Japanese language proficiency, shorter lengths of stay in Japan, and higher levels of integrative and instrumental motivation—preferred using various kinds of media which had mediating effects on their sociocultural adaptation; whereas demographics including both integrative and instrumental motivations had direct effects on improving their academic adaptation. These results show different ways to improve MCISs and other ISs' sociocultural and academic adaptations in the future.

1. Introduction

In July 2008, the Japanese government published a policy stating that it would accept 300,000 international students (ISs) by 2020; the targeted figures were achieved in 2019 (JASSO, 2020). Many ISs have since arrived in Japan for further education. However, although 60% of the ISs wished to find employment in Japan after graduation, only 30% were able to do so (JASSO, 2020). One reason for this may be that ISs are unable to easily adapt to the Japanese society.

Traditionally, ISs' successful social support networks (SSNs), including more Japanese language speakers (JLSs), have been considered effective in improving their adaptation in Japan (Tanaka, 2000). However, Ye (2017) investigated the causal relationship between ISs' SSNs and adaptation by comparing the SSNs formed through face-to-face (FTF) communications, voice calls, instant messaging (IM) texts, and emails between males and females. She found that ISs who adapted well were able to form larger SSNs with JLSs via FTF communication, and only female SSNs with JLSs were effective in decreasing their maladaptation. Moreover, it was found that compared to the SSNs formed via FTF communications, those established through voice calls and IM texts included more same-language speakers (SLSs) than JLSs.

Regarding the different effects of JLSs and SLSs on ISs' adaptation, Ye (2018) indicated that ISs' generalized trust of others not only had direct effects on improving their sense of acceptance in Japan but also increased their social support from JLSs, which had mediating effects on improving their sense of acceptance in Japan. However, no similar mediating effects were detected for social support from SLSs.

Additionally, Ye (2021) compared the effects of ISs' generalized trust toward out-group members and their group identification toward in-group members on their feelings of stress in Japan, and found that the former had direct effects on decreasing their feelings of stress, while the latter had direct effects on increasing their feelings of stress. Furthermore, ISs' generalized trust, along with their SSNs with JLSs, led them to receive more social support from JLSs, and this had mediating effects on decreasing their feelings of stress. However, ISs' group identification and their SSNs with SLSs led them to receive more social support from SLSs, which in turn, had mediating effects on increasing their feelings of stress.

Owing to the influence of the COVID-19 pandemic, people have been trying to avoid FTF communication, and they preferred various forms of media to communicate with others. In addition, most universities had implemented COVID-19-mitigating measures such as shifting FTF classes to online modes, thus leading ISs to have fewer opportunities to meet JLSs and receive less social support from them. Meanwhile, their communication with SLSs became more frequent as media usage facilitated their selective interpersonal relationships. Ye (2022) conducted a survey targeting ISs in mid-to-early June 2020, immediately after the first state of emergency was lifted, and found that although ISs from mainland China (MCISs) had higher levels of Japanese proficiency, they used official media such as Japanese television and newspapers much less than other ISs, and most used Weibo to search information about COVID-19, even though they all stayed in Japan. However, issues such as the language/s used by ISs to search information, their attitudes toward various media

from different countries, and differences or similarities in these variables between MCISs and other ISs have not been studied. Therefore, this study examined MCISs' and other ISs' frequency of information collection in their mother tongue and a foreign language and their degree of trust in different media from Japan, their home country, or other countries.

According to previous studies, there are two types of motivation for ISs' to study abroad: integrative and instrumental. The former refers to a favorable attitude toward the target language community and a possible desire to integrate and adapt to a new target culture using the language, while the latter refers to learning to accomplish a task, such as passing a course and getting better pay (Gardner, 1985). Additionally, there are two types of adaptation: sociocultural and academic (Searle & Ward, 1990). The former entails adjustment to social customs and norms, as well psychological adaptation caused by anxiety, depression, and loneliness owing to the loss of SSNs. Conversely, academic adaptation refers to factors such as second-language proficiency and academic performance.

In Japan, over 90% of the ISs come from Asia and nearly half come from mainland China (JASSO, 2022). This means that compared to other ISs, MCISs can easily form in-group members, especially among those with higher levels of group identification. Additionally, according to JASSO's (2017) survey results, regarding the reasons for coming to Japan, 48.3% answered "to work in Japan/get a job at a Japanese company," and 47.0% answered "to obtain an academic degree," while only 20.8% answered "interested in Japan and intercultural communication with the Japanese." This indicates that ISs in Japan have stronger instrumental

motivation than integrative motivation. However, we still do not know how ISs' motivations relate to their adaptation and whether these would differ or not between MCISs and other ISs.

Until now, it has been pointed out that ISs' use of the host society's media facilitates effect on language acquisition and adaptation to the host culture (Elias & Lemish, 2011), while the frequent use of the home country's media is associated with ethnic identity and inhibits their adaptation (Lee & Lee, 2017). However, currently, people can use various kinds of media to obtain information and communicate with people from around the world conveniently. Therefore, it is supposed that ISs with higher levels of Japanese language proficiency and generalized trust, and stronger integrative motivation, may have higher levels of trust in Japanese media and use them more to obtain information objectively, which will improve their sociocultural and academic adaptations. On the other hand, ISs with lower levels of Japanese language proficiency with stronger instrumental motivation and higher levels of group identification may have higher level of trust in media from their home country, and therefore use them to obtain information more than media from Japan or other countries. This will improve their academic adaptation but not their sociocultural adaptation.

As mentioned above, MCISs possessed higher levels of Japanese language proficiency and longer durations of Japanese language learning than other ISs. Thus, it is reasonable to believe that these factors, along with their integrative motivation, will not only have direct effects on improving MCISs' sociocultural adaptation but also help form larger SSNs with JLSs. This will help them receive more social support from JLSs, which will benefit their sociocultural adaptation.

On the other hand, higher levels of English language proficiency and stronger instrumental motivation will help improve the academic adaptation of other ISs. However, owing to their lack of Japanese language proficiency, their demographics may lack the ability to have similar effects on their SSNs with JLSs.

To examine these points, the present study investigated the model shown in Figure 1. In Figure 1, "Demographics" referred to age, gender, length of stay in Japan, duration of learning the Japanese language, Japanese and English language proficiency, experience from a part-time job, languages used mainly for taking courses, and their integrative and instrumental motivations. The "SSNs" included the communication partners, frequency of meeting each other, ways for contacting, and their communication partners' importance for ISs among these factors. Additionally, "social support received" referred to the support from JLSs, SLSs, and other-language speakers (OLSs). "Media usage" included the degree of trust in information resources from different countries, and the frequency of using media to collect information using ISs' mother tongue and foreign languages. This study examined the sociocultural and academic adaptations as dependent variables

between MCISs and other ISs.

2. Research Method

To examine the above-mentioned issues, an online self-report survey was conducted between November 19 and December 10, 2021.[2] Questionnaires in Japanese, English, and Chinese (both simple and traditional) were used, allowing the participants to select the version they wished to answer. The English version was translated by the author and reviewed, and proofread by a native English speaker. The two Chinese versions were translated by native Chinese speakers whose Japanese language proficiency was close to that of native Japanese speakers. The participants were ISs enrolled in different universities throughout Japan. The questionnaire survey with four language versions was created using the SurveyMonkey tool. We sent out the links to the survey with instructions to ISs who had participated in the project's previous surveys and who studied at our graduate school. In addition, we sent invitations via emails and group chats to ISs in other graduate programs at the university for responses to the survey. We asked professors at other universities and ISs who responded to the survey to share the survey'
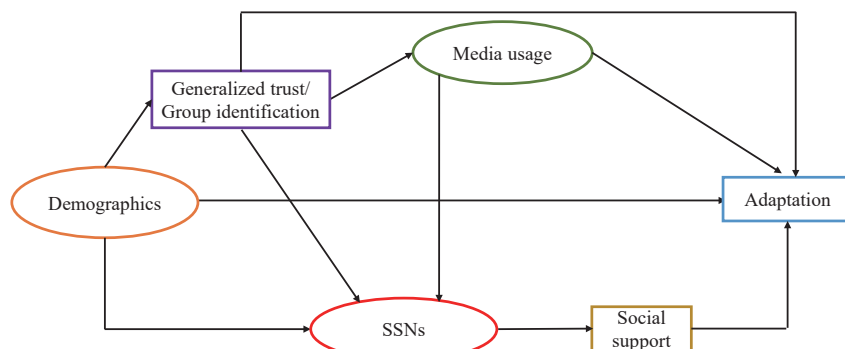

Figure 1. The model analyzed in this study

links. Before responding to the survey, the ISs were provided with written instructions and information regarding the storage of their data, informed consent, voluntary nature of their participation, privilege to withdraw, and privacy and protection of their personal information. In total, 394 ISs submitted their responses. The responses from ISs outside of Japan and those who had stayed in Japan for less than three months were excluded as this survey appraised SSNs in the last three months. The remaining 364 responses were analyzed in this study. The survey comprised three parts. The contents of the survey were as follows:

Part A gathered personal information, including demographic data, such as gender, age, nationality, mother language, first and second foreign languages, academic standing, total length of stay in Japan, duration of learning of the Japanese language, level of Japanese language proficiency (score and level in the Japanese Language Proficiency Test [JLPT], and self-evaluation of Japanese language proficiency in reading, listening, speaking, and writing compared to an adult native Japanese speaker reported as a percentage),[3] English language proficiency (score in TOEFL-iBT and TOEIC, and self-evaluation of English language proficiency in reading, listening, speaking, and writing compared to an adult native English speaker, reported as a percentage),[4] lifestyle,[5] and experience with and frequency of working part-time jobs (see Table 1 for details).

In addition, six items were chosen from Yamagishi and Yamagishi (1994) to measure the participants' levels of generalized trust. Twelve items from Karasawa (1991) were used to measure group identification. Ten items were revised and used to measure the ISs' motivation

for studying abroad based on JASSO's results (2017). The responses were rated on a five-point Likert scale (5=Strongly agree; 1=Strongly disagree).

Part B addressed the ISs' frequency of using media to collect information in their mother tongue and other languages per day in the last three months by making them choose one answer from "Over 10 times" to "Don't use" (Table 2).[6] In addition, ISs were asked to rate their degree of trust in the information sources from Japan, their home country, and other countries or regions, by choosing one answer from "5. Strongly reliable," "3. Neutral" to "1. Strongly unreliable," and "Don't use" (Table 3).

Part C measured ISs' SSNs by asking them to list up to 10 persons they communicated with over the previous three months. For each SSN, the ISs were asked to provide their contact person's gender, age, nationality, relationship, frequency of contact (4. Almost every day; 1. Less than one month), importance to the participants (5. Very important; 1. Not important), and so on (See Tables 4 & 5). In addition, 13 items were used to measure the social support received from SLSs, JLSs, and OLSs based on Okunishi and Tanaka (2008) and Ye (2021) (Table 6), by choosing "Yes" or "No." Furthermore, 11 items based on Pascarella and Terenzini (1980) were revised and used to measure the ISs' academic and sociocultural adaptations on a 5-point scale (5. Strongly agree; 3. Neutral; 1. Strongly disagree) (Table 7).

3. Results

3.1 Descriptive Results

The results indicated that 44.0% of ISs were from mainland China, followed by Indonesia (6.3%), Vietnam (5.2%), Malaysia (4.4%), and

America (3.6%). This result is similar to that of Ye (2022) and the national survey results (JASSO, 2022).

Table 1 shows that regarding their lifestyle, more MCISs lived with other ISs, while more other ISs lived with family or relatives; the ratio of enrollment in doctoral programs among other ISs was much higher, and over 78% of them received a scholarship, while only 36.9% of MCISs received a scholarship. In addition, MCISs had a longer duration of learning Japanese, as 78.8% of them had passed the JLPT-1, and 76.9% took their courses mainly in Japanese, whereas 75.5% of the other ISs took their courses mainly in English. Furthermore, the t-test results (independent sample) showed significant differences in their language proficiencies. For the Japanese language, $t(362) =13.38$, $p<.001$, and MCISs vs. other ISs=.66 vs. .33; for the English language, $t(244.4)=8.34$, and $p<.001$, MCISs vs. other ISs=.67 vs. .84.

Regarding the ISs' levels of generalized trust

Table 1. Participant characteristics

Items	MCISs (160)		Other ISs (204)	
Gender ratio	Males 36.9%	Females 63.1%	Males 48.5%	Females 51.5%
Age (in years)	25.4 years (*SD* 3.01)		28.8 years (*SD* 5.57)	
Academic standing	Undergraduate 20.6%	Master's 55.0%	Undergraduate 19.1%	Master's 31.9%
	Doctoral 23.1%	Other 1.3%	Doctoral 43.6%	Other 5.4%
Length of stay in Japan	41.2 months (*SD* 28.3)		37.6 months (*SD* 28.7)	
Duration of learning Japanese	55.3 months (*SD* 35.4) (JLPT-N1/L1 holders 110, 68.8%)		41.1 months (*SD* 47.5) (JLPT-N1/L1 holders 27, 13.2%)	
English language proficiency test[2]	TOEIC 47.5%	TOEFL 36.3%	TOEIC 31.9%	TOEFL 29.4%
	IELTS 6.3%	Other 0.0%	IELTS 26.5%	Other 0.5%
Residence	University dormitory 12.5% Dormitory for ISs only 11.3% Private rental housing 70.6% Rental/house share of foreigners 0.6% Other 5.0%		University dormitory 36.8% Dormitory for ISs only 6.4% Private rental housing 54.4% Rental/house share of foreigners 1.0% Other 1.5%	
Lifestyle	Alone 68.1% With family/relatives 7.5% With Japanese students 1.3%	With other ISs 20.0% Other 3.1%	Alone 64.2% With family/relatives 15.2% With Japanese students 4.9%	With other ISs 8.8% Other 6.9%
Scholarship	Yes 36.9% (MEXT: 45.8% Private 39.0% Other 8.5%) No 63.1%		Yes 78.4% (MEXT: 66.9% Private 23.1% Other 9.4%) No 21.6%	
Language for taking course mainly	Japanese 76.9% Other 0.6%	English 22.5%	Japanese 22.5% Other 2.0%	English 75.5%
Part-time job	Yes 46.3% (*Mean* 6.0 hour per week) No 53.7%		Yes 32.4% (*Mean* 4.5 hour per week) No 67.6%	

and group identification, MCISs had higher levels than other ISs on both scales. For the former, $t(362)=2.06$, $p<.05$, and MCISs vs. other ISs=22.06 vs. 21.15; for the latter, $t(362)=4.63$, $p<.001$, and MCISs vs. other ISs=45.73 vs. 41.70. Furthermore, it was found that other ISs had higher levels of both integrative and instrumental motivation than MCISs: for the former, $t(307)=2.69$, $p<.01$, and MCISs vs. other ISs=14.85 vs. 15.80; for the latter, $t(362)=10.95$, $p<.001$, and MCISs vs. other ISs= 17.99 vs. 21.73.

Table 2 shows the frequency of information collected using the mother tongue and foreign languages between the two groups. The results indicated that MCISs used their mother tongue more than foreign languages, while other ISs used foreign languages more than their mother tongue to obtain information in their daily lives. Additionally, Table 3 shows the degree of trust in the two groups for different media. To compare MCISs and other ISs' degrees of trust in media in Japan/home country/other countries, this study conducted a t-test (independent sample). The results showed that, compared to MCISs, other ISs had higher levels of trust in official institutions and mass media, whereas MCISs had higher levels of trust from celebrities and influencers in Japan and their home country (China).

3.2 ISs' configurations of SSNs and social support received

The ISs' configurations of SSNs are detailed in Tables 4 and 5. The results indicated that compared to MCISs, other ISs formed larger SSNs, met with JLSs and OLSs more frequently than MCISs, and considered JLSs and OLSs to be more important than MCISs.

Regarding the social support that ISs received from JLSs, SLSs, and OLSs, this study conducted a t-test (independent sample) to compare which group that MCISs and other ISs received more social support from. The results showed that

Table 2. Frequency of information collection per day in the last three months using different languages

Method of information collection	MCISs		Other ISs	
	Mother	Foreign	Mother	Foreign
1. Official sources (TV, government press, etc.)	96.6	113.3	114.9	138.4**
2. News apps and sites (Google News, LINE News, Yahoo! News, etc.)	113.3	115.1	129.0	149.7*
3. Social media (Facebook, Twitter, Instagram, Weibo, etc.)	165.8***	127.3	192.1	191.8
4. Messenger app (LINE, WhatsApp, WeChat, etc.)	213.0***	117.6	164.3	157.7
5. Blog (Ameba Blog, Seesaa Blog, etc.)	63.2***	24.6	21.0	33.5*
6. Information sharing website (Tabelog, etc.)	93.8***	49.1	38.8	49.7
7. Q&A website (Yahoo! Answers, etc.)	93.8***	46.3	32.4	53.8***
8. Video website (YouTube, Niconico Video, Vine, TikTok, Bilibili, etc.)	184.3***	136.9	171.3	193.1
9. E-mail, chat, forward articles, etc., with friends and acquaintances in Japan	90.0	105.8	117.9	150.2***
10. E-mail, chat, forward articles, etc., with friends and acquaintances in home country	138.0***	68.8	154.1***	117.8

Note: *$p<.05$; ***$p<.001$.

Table 3. Degree of trust in different media between MCISs and other ISs

Information and news items	MCISs			Other ISs		
	Japan	Home	Other	Japan	Home	Other
1. Information disseminated by the official institutions (Government or Administrative agencies)	3.7	3.6	2.9	4.3***	3.6	3.4***
2. Information disseminated by the mass media	3.2	3.1*	2.6	3.4*	2.9	2.9*
3. Information disseminated by the private organizations (Companies or NPOs)	3.1	2.8	2.4	3.3	3.0	2.8***
4. Information spread and posted by friends/acquaintances in real life	3.2	3.2**	2.44	3.1	2.9	2.6
5. Information spread and posted by Japanese celebrities	2.6***	2.4***	2.1	1.9	1.9	2.0
6. Information spread and posted by strangers in Japan	2.0*	2.2***	1.9	1.7	1.7	1.7

Note: *$p<.05$; ***$p<.001$.

Table 4. Configuration of SSNs (from the perspective of gender)

	MCISs			Other ISs		
	Total	Same gender	Crossed-gender	Total	Same gender	Crossed-gender
Number	5.7	3.6	2.2	7.8***	4.6***	3.2***

Note: ***$p<.001$.

Table 5. Configuration of SSNs (from the perspective of nationality)

	MCISs			Other ISs		
	SLSs	JLSs	OLSs	SLSs	JLSs	OLSs
Number	4.1	1.4	.2	4.2	2.0	1.7
Frequency of meeting	8.8	3.8	.5	12.6	5.5***	5.2***
Importance for ISs	17.2	5.5	.82	18.1	7.7**	6.9***
Communication via voice calls/messages	3.1	.64	.1	3.3	.6	.8***
Text messages	3.4	.92	.2	3.8	1.2	1.5***
Emails	.1	.63	.0	.12	.7	.2**

Note: **$p<.01$; ***$p<.001$.

overall, MCISs received more social support from SLSs while other ISs received more social support from OLSs (Table 6). In addition, MCISs received more social support from JLSs in terms of learning the Japanese language and better understanding the Japanese culture; whereas other ISs received more social support from JLs in terms of interpersonal relationships and obtaining useful information. Furthermore, compared to the period before COVID-19 (Ye, 2021), the percentage of ISs' receiving social support from JLSs in terms of better understanding the Japanese culture and customs (item 3) and helping with research (item 6)

increased for both MCISs and ISs, while the percentage of ISs' receiving social support from JLSs in providing useful information and material support decreased (items 11, 12).

3.3 Sociocultural and academic adaptations of ISs' and factors influencing them

Table 7 lists the items, the average score for each item, and the *t*-test results (independent sample) for the sociocultural and academic adaptations between the two groups. The results indicated significant differences between the two

groups in terms of academic adaptation; however, there were no significant differences in their sociocultural adaptation.

This study performed structural equation modeling (SEM) analysis to clarify the relationships indicated in Figure 1 and compared the effects of generalized trust and group identification on ISs' media usage and SSNs with JLSs, SLSs, and OLSs, and the social support received from JLSs, SLSs, and OLSs in their sociocultural and academic adaptations.[7] As a result, only the models including generalized

Table 6. ISs' social support received from others: Compared to the period before COVID-19

Items	Ye (2021)			MCISs			Other ISs		
Received social support	JLSs	SLSs	OLSs	JLSs	SLSs	OLSs	JLSs	SLSs	OLSs
1. Explained Japanese to me when I did not understand it even after reading or listening to it	90.4%	73.7%	51.7%	90.6%	81.3%***	34.4%	89.2%	61.3%	64.2%***
2. Corrected my mistakes in Japanese when writing or speaking	75.1%	56.0%	38.8%	81.3%*	60.6%**	17.5%	72.1%	44.6%	47.5%***
3. Explained Japanese culture and customs to me	38.8%	68.4%	46.9%	88.1%	68.8%	21.3%	88.7%	63.7%	57.8%***
4. Became interested in my country's culture and customs and tried to understand them	82.8%	59.8%	65.1%	86.9%**	70.6%***	41.3%	75.5%	49.5%	70.6%***
5. Helped me finish my homework and pass examinations	45.0%	47.8%	39.2%	40.0%	52.5%	18.8%	42.6%	44.1%	42.6%***
6. Helped me conduct my research	58.4%	44.5%	38.8%	79.4%	74.4%***	26.9%	70.6%	50.5%	53.4%***
7. Could be consulted when I experienced personal problems	47.4%	84.2%	45.9%	48.8%	90.0%	26.3%	57.4%	83.3%	61.8%***
8. Encouraged me when I did not do well	57.4%	83.3%	54.5%	56.9%	90.0%*	28.7%	66.7%	82.4%	72.1%***
9. Went out for leisure and to have fun together	58.9%	85.6%	60.3%	60.6%	94.4%*	36.3%	70.6%*	67.6%	76.0%*
10. Gave me necessary/useful items	60.8%	83.3%	56.0%	56.9%	85.6%*	25.0%	67.6%*	76.0%	62.7%***
11. Lent me money when I needed it	26.8%	63.2%	27.8%	16.9%	57.5%	6.9%	25.0%	56.9%	34.3%***
12. Provided useful information for my life in the local area	81.3%	81.3%	57.4%	65.6%	85.6%*	24.4%	78.9%**	75.0%	66.2%***
13. Told me how to conduct necessary procedures and provided information about important notices at the university	72.2%	74.2%	50.7%	75.0%	81.9%**	23.1%	82.8%	69.1%	66.2%***

Note: Ye (2021) conducted the survey from June to July 2018. *$p<0.5$; **$p<.01$; ***$p<.001$.

Table 7. ISs' sociocultural and academic adaptations' mean score and results of the *t*-test

Items	MCISs	Other ISs
1. My non-classroom interactions with the faculty have positively influence my personal growth, values, and attitudes.	3.8	3.8
2. My non-classroom interactions with the faculty have had a positive influence on my intellectual growth and interest in ideas.	3.6	3.8
3. My non-classroom interactions with the faculty have had a positive influence on my career goals and aspirations.	3.5	3.7
4. Since enrolling at the current university/graduate school, I have developed a close and personal relationship with at least one faculty member.	3.7	3.8
5. I am satisfied with the opportunities to meet and interact informally with the faculty members.	3.6	3.5
6. I am satisfied with the extent of my intellectual development since enrolling at the current university/ graduate school.	3.7	3.9
7. My academic experience has had a positive influence on my intellectual growth and interest in ideas.	3.9*	4.2*
8. I am satisfied with my academic experience at this university/ graduate school.	3.6**	4.0**
9. Some of my courses this year have been intellectually stimulating.	2.9**	2.5**
10. My interest in ideas and intellectual matters has increased since enrolling at the current university/graduate school.	3.8**	4.1**
11. I have performed academically as well as I anticipated.	3.4**	3.8**

Note: *p<.05; **p<.01. Items 1~5: Sociocultural adaptation; Items 6~11: Academic adaptation.

trust and SSNs with JLSs could be adopted; those including group identification and SSNs with SLSs or OLSs were neither adopted nor had any effect. All the indexes, parameter estimates, and goodness of fit are depicted in Figures 2-5.

The demographics of MCISs were found to have positive effects on SSNs with JLSs, helping them receive more social support from JLSs, which had mediating effects on improving their sociocultural and academic adaptations. In particular, it was found that MCISs with higher levels of Japanese language proficiency, a longer stay in Japan, higher levels of integrative motivation, and those who took courses mainly in Japanese had such effects. Additionally, it was found that demographics had slightly significant effect on their sociocultural adaptation, but they did not have any effect on their academic adaptation. Furthermore, although generalized

trust had effects on their media usage, neither it nor media usage had any effect on sociocultural or academic adaptation. Finally, it was found that generalized trust had slightly significant effects on the formation of SSNs with JLSs.

In terms of other ISs, it was found that their demographics not only had direct effects on their media usage but also had effects on their generalized trust; this made them use more media, which had mediating effects on improving their sociocultural adaptation but had no similar effects on their academic adaptation. Additionally, it was found that demographics had direct effects on academic adaptation. In particular, ISs with higher levels of instrumental and integrative motivation, lower levels of Japanese and English language proficiencies, and a shorter stay in Japan seemed to directly affect their academic adaptation. Finally, it was found that their
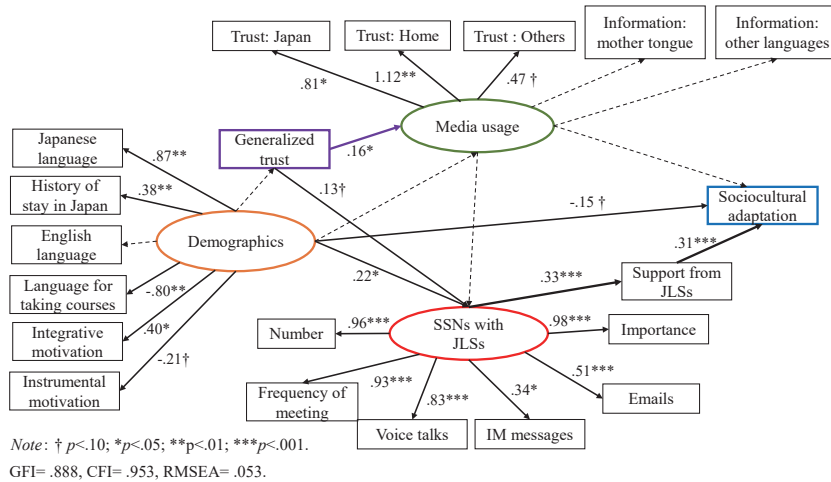
Note: † p<.10; *p<.05; **p<.01; ***p<.001.
GFI= .888, CFI= .953, RMSEA= .053.

Figure 2. Results for MCISs' sociocultural adaptation

Note: † p<.10; *p<.05; **p<.01; ***p<.001.
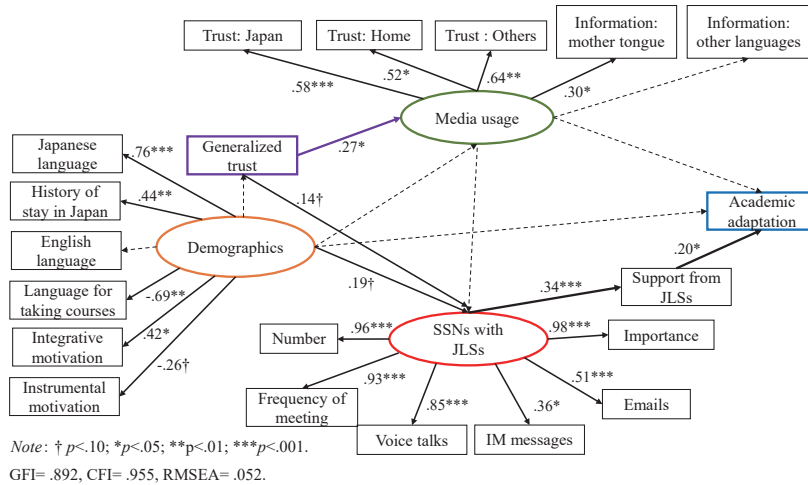GFI= .892, CFI= .955, RMSEA= .052.

Figure 3. Results for MCISs' academic adaptation

demographics did not have any effect on their SSNs with JLSs, and the effects of their SSNs with JLSs on social support from JLSs could also not be found, although social support from JLSs helped to improve their sociocultural and academic adaptations.

4. Discussion

This study investigated the relationship between ISs' integrative and instrumental motivation, media usage, and sociocultural/ academic adaptation during the COVID-19 pandemic, comparing their SSNs with JLSs, SLSs, and OLSs, from the perspective of generalized trust and group identification, as well as the differences in these relationships between MCISs and other ISs.

Compared to MCISs, other ISs had higher levels of integrative motivation, instrumental motivation, and academic adaptation, and were able to form larger SSNs with JLSs and OLSs,
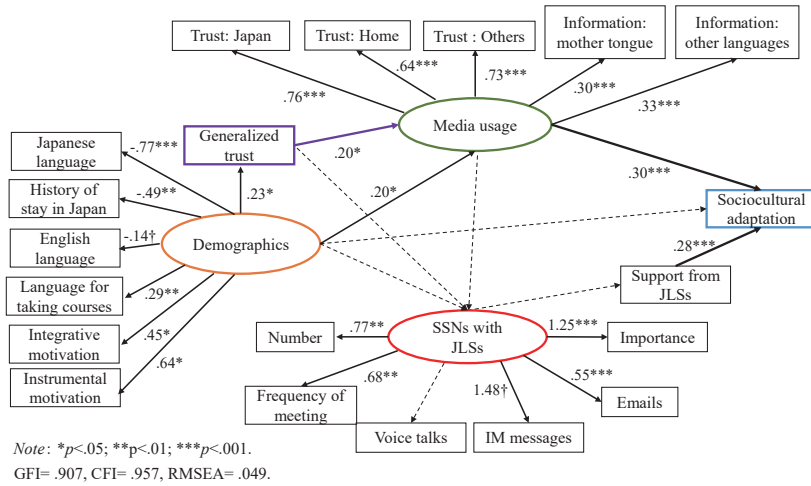
Note: *p<.05; **p<.01; ***p<.001.
GFI= .907, CFI= .957, RMSEA= .049.

Figure 4. Results for other ISs' sociocultural adaptation

Note: † *p*<.10; *p*<.05; **p<.01; ***p<.001.
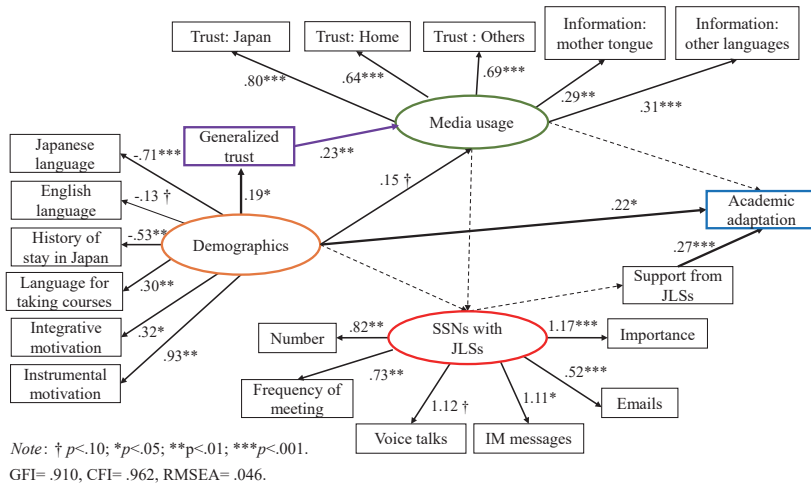GFI= .910, CFI= .962, RMSEA= .046.

Figure 5. Results for other ISs' academic adaptation

and received more social support from them. However, the SEM results showed that MCISs' demographics had positive effects on their SSNs with JLSs, which helped them receive more social support from JLSs, while other ISs' demographics did not have any effects on their SSNs with JLSs. One of the main reasons for this might be their lack of Japanese language proficiency, as only 13.2% had passed the JLPT-L1/N1 and 75.5% had taken courses mainly in English. Additionally, their SSNs with JLSs did

not help them receive more social support from JLSs. This may be due to their larger SSNs with OLSs (Table 5) and more social support received in some items from OLSs than JLSs and SLSs, as indicated in Table 6. These results suggest that improving MCISs' Japanese language proficiency and integrative motivation for those taking courses mainly in Japanese will help form larger SSNs with JLSs resulting in receive more social support, which will improve their sociocultural and academic adaptations. In contrast, as other

ISs' demographics had significant direct effects on their academic adaptation, it is suggested that improving their instrumental and integrative motivations for taking courses mainly in English, will help improve their academic adaptation, as these three factors had the strongest positive effects among their demographics.

Regarding the effects of media usage on other ISs, it was found that those with lower levels of Japanese language proficiency, shorter stays in Japan, and higher levels of integrative and instrumental motivations used different media to obtain information, which helped improve their sociocultural adaptation. In particular, their trust in Japanese media seemed to have the largest effect, followed by media from other countries or regions, while the home country's media seemed to have the least effect. These results show that the use of the host society's media has a facilitating effect on language acquisition, and that a better understanding of the host culture is effective for other ISs with lower levels of Japanese language proficiency, a shorter stay in Japan, and higher motivation to understand Japanese culture.

Previously, it was suggested that the frequent use of the home country's media is associated with ethnic identity and may inhibit adaptation (e.g., Lee & Lee, 2017). However, from the SEM results for MCISs, it was found that media usage did not have any effect on their sociocultural or academic adaptation, although they had the highest degree of trust in their home country's media. These results suggest that for MCISs, media usage (including that of the home country) does not directly improve or inhibit the two types of adaptation. However, as MCISs used voice calls and IM messages to form larger SSNs with SLSs than with JLSs and OLSs (Ye, 2017; 2021),

with no effect for SSNs with SLSs or OLSs on improving their sociocultural and academic adaptations from the SEM results, it is suggested that the effects of media used to communicate with speakers of different languages may differ from those of media used to obtain information in daily life. However, this requires further investigation.

In contrast to Ye (2021), there were slightly significant effects of MCISs' generalized trust on SSNs with JLSs; however, no similar effects were found among other ISs. This might be partly due to the MCISs' higher level of generalized trust than other ISs. It is necessary to examine this in detail in future studies.

5. Conclusion

This study was conducted during the period when the fewest number of people were affected by the COVID-19 pandemic; however, there were many restrictions on people's daily lives compared to those before COVID-19. The results indicated that MCISs and other ISs had different ways of improving their sociocultural and academic adaptations, including media usage. Although this study was conducted during a specific period, as ISs' communication behaviors, learning and using language habits, and motivations for studying in Japan might not have changed much because of the pandemic, it is believed that the implications obtained from this study will help understand how to support ISs better to improve their sociocultural and academic adaptations based on their demographic factors and cultural backgrounds.

Notes

1) Segments of the results have been reported at the

37th SIETAR Japan Annual Conference in November 2022.

2) The survey was conducted with the approval of the Research Ethics Review Board of the Faculty of Library, Information and Media Science at the University of Tsukuba.

3) Japanese language proficiency was determined as follows: (a) For ISs that had passed JLPT-L1/N1, it was calculated as L1 score/400 or N1 score/180. (The total score of L1 is 400, while that of N1 is 180.); (b) For ISs that had passed JLPT-L2/N2, it was calculated as L2 score/400 × .08 or N2 score/180 × .08. (L2/N2 level is approximately 80% of L2/ N2's.); (c) For ISs who did not pass JLPT 1/2, it was calculated as (self-evaluation percentage of "listening"+speaking"+"reading"+"writing")/400.

4) English language proficiency was calculated as follows: (a) for ISs who had taken TOEIC: their score/ 990; (b) for ISs who had taken TOEFL-iBT: their score/120; (c) for ISs who had taken IELTS: their level/9; (d) for ISs who had taken multiple tests, their average percentage from (a) and/or (b) and/or (c) was used; (e) for ISs who had not taken any test, proficiency was calculated as (self-evaluation percentage of listening+speaking+reading+writing)/400.

5) Regarding their living style, "living alone" was coded as "1" and living with others was coded as "2" in the analysis.

6) Their frequency of information collecting was calculated monthly as follows: "over 10" was counted as 300, "6-10" was counted as 240, "3-5" was counted as "120", "1-3" was counted as 60, "less than once" as 30, and "did not use" was 0.

7) This study coded "Japanese" as "0" "English" as "1" and "others" as "2" when analyzing "language for taking courses mainly." As there was one MCIS that chose "others," which was not sufficient sample to analyze, this study only used 159 MCISs

and 200 other ISs' data in the SEM.

Acknowledgement

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