Finding an Effective Treatment for Sustainable Chinese Language Learning in Japan: A Comparative Study on Motivation of Different Ages

Qiao-Yu Cai

Abstract: Sustaining learners’ motivation to keep learning has been concerned for over 60 years in education and SLA. Most research focusing on Japanese university students has contributed lots of theoretical and practical developments, but research focusing on motivations of non-traditional adult learners and those under 18-year-old to learn Chinese is still little even though previous research findings have proved age is one of the key variables influencing learning besides nationalities and Chinese language levels. In order to find an effective treatment for sustainable Chinese language learning in Japan, this study utilized a survey method to analyze the types of Japanese learners’ motivation to learn Chinese via analysis of a moment structures (AMOS), and to compare the differences of the motivation via one-way ANOVA. This study revealed that Japanese learners’ motivation to learn Chinese consists of eight common types, which are “instrumental motivation”, “personal orientation”, “identified regulation”, “Chinese cultural productions”, “integrating into Chinese community”, “external regulation”, “social responsibility”, and “Chinese for academic purposes”. Also, there are similarities and differences existing in the eight motivation types among the Japanese children, adolescents, (non-) traditional adult learners of Chinese as a foreign language (CFL). The findings contribute the understanding of motivation types and differences among the four aged Japanese learners to teachers of teaching Chinese to speakers of other languages (TCSOL), and to future research further exploring how differently aged Japanese learners can have and use a higher motivation as a main drive to learn Chinese language as a lifelong business.

Keywords: motivation for learning Chinese, Japanese learners of Chinese, teaching Chinese to Japanese learners, teaching Chinese to kids and adolescents, teaching Chinese to adults

1. Introduction

Sustaining learners’ motivation has been a basic but important issue in primary education [1–3], secondary education [4–6], higher education [7–9], and SLA [10–15] due to the recognition of motivational impact of the main components of the classroom learning situation, such as the teacher, the curriculum, and the learner group [10]. In Taiwan, the number of Japanese learners of Chinese has always been one of the highest; in Japan, there is an increasing number of Japanese learners of Chinese, and the population of Japanese learners of Chinese is only second to that of Japanese learners of English in Japan. Nin and Cai [16] believed that clarifying the motivations of Japanese people to learn Chinese will be of great significance for planning future innovative Chinese language curriculum and teaching materials for Japanese learners, which in fact motivates the present study to find an effective treatment for sustainable Chinese language learning through comparing differently aged Japanese learners to understand their motivations to learn Chinese as a foreign language (CFL).

Compared to motivation research in the fields of English and education, little research is conducted in the teaching Chinese to speakers of other languages (TCSOL). Nevertheless, as TCSOL courses in the world spring up like mushrooms after rain, research of
Chinese language learning motivation achieves fruitful results and consequently the importance of this issue remains in focus. Regarding the motivations of Japanese people to learn Chinese, the majority of research has involved Japanese university students, who are treated as traditional adult learners, and the findings have helped to improve teaching CFL to Japanese learners. However, the present study found that research regarding motivations to learn Chinese among Japanese children younger than 18 years and salaried Japanese people, who are treated as non-traditional adult learners, is not widespread, even though salaried Japanese people are most likely to learn Chinese for job and sightseeing purposes. Previous related studies confirmed that age is an important variable affecting learning CFL in addition to nationality and Chinese language proficiency. Although motivations to learn Chinese that vary with age are diverse and complicated, few studies have explored motivations to learn Chinese among differently aged Japanese people. This is undoubtedly a knowledge gap in the field of teaching CFL to Japanese learners. Therefore, the present study aims to analyze the motivations of Japanese people to learn Chinese via Analysis of Moment Structures (AMOS) and to compare differences in motivations via a one-way ANOVA. Once the motivations of differently aged Japanese learners of CFL are well understood, it may be helpful for TCSOL teachers to effectively enhance their motivations to learn Chinese for sustainable Chinese language learning in Japan.

2. Literature Review

Theories on motivations to learn foreign languages and findings of previous related studies have also been applied to TCSOL since 1990s when Japanese research on motivations to learn foreign languages has been conducted [17–20]. As far as Chinese L2 learners’ ages and their motivations to learn Chinese are concerned, He [21] pointed out that foreign students learn Chinese for wanting to be translators, for doing business in China, and for personal interest in Chinese culture. Their motivations are different from those of native Chinese speaking children acquiring their mother tongue. Xia [22] found that Chinese-heritage students’ motivations to learn Chinese are constantly evolving with ages. For example, younger students’ motivations to learn Chinese are influenced by interests, learning content, teachers’ comments, parents’ requirements, as well as their weak self-control ability; these five factors make them feel they are forced to learn Chinese. Adolescent Chinese-heritage students, however, realize that the main priority to learn Chinese is to prepare themselves for jobs and further studies, followed by obeying parents’ requests, understanding Chinese culture, and engaging themselves in social communication. Hou [23] found that the older the students become, the more obvious their social motivations are, such as minding their status in the class, and comparing their Chinese test scores with other students’. In addition, older students hope to find good jobs in the future, so they have stronger instrumental motivations. Moreover, older students are afraid that their Chinese grades are worse than those of younger students, so they are active to learn Chinese to gain other students’ respect. Such motivation is called “prestige motivation”, which is one of the key factors for older students to learn Chinese. A questionnaire survey, conducted among 761 foreign students studying in China, reported that around 75% of the students studied Chinese for occupations, about 25% for understanding China, and about 17% for being Chinese teachers or conducting Chinese language research [18]. Shi and Wan [19] compared foreign students studying in China and learning Chinese characters; they found that students from West Asia and Europe have the highest interest in learning Chinese characters, followed by students from Southeast Asian countries, and finally by Japanese and South Korean students. This is because students from “non-Sphere of Chinese language influence” worship Chinese culture, literature and art, or originally are fascinated with Chinese characters. On the contrary, Japanese and South Korean students being in the “Sphere of Chinese language influence” learn Chinese characters from
an early age in their own countries; therefore, knowing Chinese characters does not motivate them to learn Chinese. Xu [24] conducted a survey of foreigners studying Chinese in universities and other educational institutions; she found that their main motivation to learn Chinese has to do with business, trade, cultural exchanges, China studies, job hunting, and life needs, accounting for 70%; to enter higher education institutes for further study is the secondary motivation, accounting for 20%; the third one is to pursue a language career, accounting for 3%; the fourth one is to study Chinese linguistics, accounting for only 1%, and unidentified motivations accounted for 5%. Lu [25] divided motivations to learn Chinese into five categories: For career, occupation, education, academic, and other purposes. Li [26] believes that foreigners’ motivations to learn Chinese is to understand China – a mysterious country, to travel in China, to seek employment, to study further in China, to study China, and to appreciate and spread Chinese language and culture. These, generally speaking, can be regarded as the common motivations to learn Chinese. Additionally, a study, by Ding and Wu [17] found higher instrumental motivations in foreign students, who have studied Chinese for a longer period; these students prefer better communication with Chinese people and economic exchanges between countries. Because motivations to learn Chinese vary, Tsai et al. [27] suggest that teachers should adopt different strategies to motivate students. For students whose motivation is for further studies, teachers can use praise and positive tone to enhance their self-confidence and encourage them to learn. For students with a business purpose, teachers should pay more attention to their current and future work needs and strengthen their four language skills. For passive learners such as elementary and middle school students who learn upon parents’ requests, teaching strategies should focus on arousing their interests to learn Chinese.

With respect to Japanese CFL learners who are under 18 years old, Xue and Chen [28] surveyed 140 elementary and middle school students at a Chinese school in Japan in October 2009; 80% had Japanese as their first language; nearly 70% were motivated to learn Chinese because of parents’ advice; about 28% feel to study and work beneficial; about 25% identify themselves as Chinese; around 10% want to communicate with Chinese people, and only about 0.9% want to understand Chinese culture. Hiraoka et al. [29] analyzed the correlations between Japanese CFL learners’ motivations and their Chinese scores by 10 items and found that the higher the motivations, the higher the Chinese scores. The items include “Because of Chinese characters, I think learning Chinese is easy”, “Learning Chinese is fun”, “Learning Chinese is cool”, “Learning Chinese for going to China one day”, “Learning Chinese is beneficial for future jobs.”, “I want to speak Chinese”, “Learning Chinese is good for job hunting”, “No exam in Chinese classes”, “Not interested in other subjects” and “Interested in Chinese classics”. Sugiue [30] conducted a study on online language exchanges for 9 months; the participants were senior high school students who were learning both Chinese and Japanese at three high schools in China and Japan respectively. Sugiue [30] found that 95% of Japanese high school students believed that online language exchanges were very conducive to improving Chinese communication skills. These students with such experiences recognized the meaning and value in learning Chinese; hence their motivations to learn Chinese increase.

As far as Japanese learners of Chinese in universities are concerned, Xia [31] categorized their motivations to learn Chinese into four types: curiosity, aimlessness, practicality, and ideality. Due to the fact that both Chinese and Japanese share common Chinese characters, so Japanese college students think that Chinese is easy to learn and course credits easy to get; this fact makes them more willing to learn Chinese. Such a motivation, called “passive motivation”, is unique to Japanese college students [32–34]. Li [35] exploring the correlation between Japanese college students’ Chinese language learning motivation and performance in a psychological perspective found that Japanese college students with practical attitudes, self-expectation, and internal and external motivations are positively correlated with their Chinese language performance. Nin and Cai [16] analyzed the
differences in Chinese language learning motivation between freshmen and sophomores, as well as male and female college students using the Independent Samples t Test. The study found freshmen’s passive influence motivation was significantly higher than sophomores’, and male college students are significantly more motivated than female ones in multilingual comparison. Mao and Fukuda [36] compared the motivations of Japanese CFL learners with those of Chinese learners studying Japanese; they found that job hunting, work, self-practice, and international communication and understanding were the main factors that explain why Japanese CFL learners tend to learn Chinese; interest in Japan and Japanese culture, and influence from others or the environment explain why Chinese JFL learners tend to learn Japanese. Tao [37] conducted a questionnaire survey on 328 students studying Chinese at five Japanese universities, and found that the most popular choice among male college students is “to obtain course credits”, accounting for about 60.0%; the most popular choice among female college students is “To make traveling to China easier”, accounting for about 47.2%. Secondly, “To increase opportunities for promotion when working in the future” is the second motivation for both male (41.2%) and female (44.8%) college students. The third place for male college students’ motivation to learn Chinese is “To make traveling to China easier”, accounting for about 36.4%, and for female college students, the third motivation to learn Chinese is “To communicate with people who speak Chinese and make friends more easily” and “to obtain course credits”, accounting for about 42.9%. Overall, the male college students’ motivation to learn Chinese tends to be aimless, while female college students’ motivation to learn Chinese is practical [37].

To sum up, it can be seen that the study of learning motivation not only has received a lot of attention and continues to be explored by scholars and experts in the field of foreign language teaching since its inception, but has also accumulated a certain amount of research results in the past 30 years. Tan [20] pointed out that the research on Chinese L2 learners’ motivations in non-native Chinese speaking environments has been increasing, a fact that shows this particular issue has caught more and more attention beyond mainland China to overseas, but most research focus used descriptive statistics and studied Chinese L2 learners in one or several particular institutes to explore their motivations to learn Chinese, due to difficulty in conducting large-scale investigations. In the hope of understanding how the motivations of learners at different age groups may be conducive to Chinese language teaching to make learners more involved in learning activities [38,39], this study assumed that differences in motivation exist among differently aged Japanese CFL learners (children, adolescents, traditional and non-traditional adult learners) in addition to personal variables, such as gender, environment, degree, occupation and others. This is because non-traditional adult learners differ from traditional adult learners in work and social experience, and multiple roles played in life [40–44]. Given the research background and literature review, this study has a clear global of analyzing the types of Japanese learners’ motivations to learn Chinese via AMOS, comparing differences of the motivations via a one-way ANOVA, and providing current research findings as an effective treatment for sustainable Chinese language learning in Japan.

3. Methods

3.1. Participants

The participants in this study were the different aged Japanese CFL learners in Japan. Approximately 900 copies of the “Questionnaire for Japanese Learners’ Motivation toward Learning Chinese” (Q-JLMLC) with three languages (Chinese, Japanese, and English) (Appendix A) were distributed in Japan, and 616 useable responses were received. The 616 respondents were 293 elementary and secondary school students at two Chinese schools, 92 Japanese university students (traditional Japanese CFL adult learners) enrolled
in Chinese courses, and 231 salaried Japanese people and retirees (non-traditional Japanese CFL adult learners) at Chinese language institutes. Participants’ ages ranged from 7 to 83 years with 80.5% Japanese, 16.9% Japanese-born Chinese, 2.6% Japanese-born Asian. Their first language is Japanese no matter which ethnicity it is. Table 1 summarizes the participants’ demographic information.

Table 1. Demographic Information about Participants

| Category                                      | Level                                      | Number | Proportion | Average age |
|-----------------------------------------------|--------------------------------------------|--------|------------|-------------|
| Age                                           | Elementary school students (children)      | 167    | 27.1       | 10.71       |
|                                               | Secondary school students (adolescents)    | 126    | 20.5       | 13.87       |
|                                               | Japanese university students (traditional Japanese CFL adult learners) | 92     | 14.9       | 20.28       |
|                                               | Salaried Japanese people and retirees (non-traditional Japanese CFL adult learners) | 231    | 37.5       | 45.90       |
| Gender                                        | Male                                       | 220    | 35.7       |             |
|                                               | Female                                     | 387    | 62.8       |             |
|                                               | Unreported                                  | 9      | 1.5        |             |
| Ethnicity                                     | Japanese                                   | 496    | 80.5       |             |
|                                               | Japanese-born Chinese                      | 104    | 16.9       |             |
|                                               | Japanese-born Asian                        | 16     | 2.6        |             |
| Chinese language proficiency                  | Introductory                               | 43     | 7.0        |             |
|                                               | Basic                                      | 176    | 28.6       |             |
|                                               | Intermediate                               | 250    | 40.6       |             |
|                                               | Advanced                                   | 112    | 18.2       |             |
|                                               | Others                                     | 11     | 1.8        |             |
|                                               | Unreported                                  | 24     | 3.9        |             |

3.2. Instrument

Designing the Questionnaire for Japanese Learners’ Motivation toward Learning Chinese for expert judgment (Q-JLMLC-EJ) with three languages (Chinese, Japanese, and English) was the first step. To lay a stable foundation for this study, the related literature and theories for motivation to learn foreign languages and items in previous foreign language learning motivation questionnaires [40–50] were analyzed and served as the items for the Q-JLMLC-EJ. 10 collective TCSOL-related scholars and specialists in Taiwan and Japan were invited to advise on items in the Q-JLMLC-EJ. This study utilized the Content Validity Index (CVI), a respected tool to evaluate the content validity of a scale proposed by Waltz, Strickland and Lenz [51], to ensure the items are appropriate.

To calculate the CVI value, the invited scholars and specialists are asked to rate the applicability of each item on a 4-point scale. There are several variations of labeling the 4 ordinal points, but the scale used most often is 1 = inapplicable, 2 = applicable after modification, 3 = applicable, and 4 = very applicable [52]. For each item, then, its CVI value is computed as the number of scholars and specialists giving a rating of either 3 or 4, divided by the number of scholars and specialists, that is, the proportion in agreement about applicability. The formula for the CVI value of each item is $CVI_i = \frac{n}{N}$, “i” stands for each item’s number, “n” stands for the number of scholars and specialists rating an item at 3 or
“NI0” stands for the 10 TCSOL-related scholars and specialists. Based on the formula, the sum of each CVI value is able to be computed out and \((\text{CVI}_{1-88})\) equals 76.3. Finally, 76.3 \((\text{CVI}_{1-88})\) divided by 88 (the number of item) is approximately equal to .867 (Total CVI), which is larger than .80. Therefore, the results demonstrated good content validity for the Q-JLMLC-EJ. Item 25 “Everybody in school has to learn Chinese.” and Item 42 “Learning Chinese is required in my school.” are similar, so Item 42 was eliminated. The concept of Item 24 “My parents and teachers want me to learn Chinese.” overlaps with that of Item 76 “I learn Chinese because my parents want me to learn it.”, so Item 76 was eliminated and Item 24 was broken down to be two separate items: “My parents want me to learn Chinese.” and “My teachers want me to learn Chinese.” To avoid respondents from answering without thinking, items in the same categories were scrambled. The developed “Questionnaire for Japanese Learners’ Motivation toward Learning Chinese” (Q-JLMLC) with Chinese, Japanese, and English languages and a 5-point Likert-type scale were adopted to measure learners’ responses, including the response degree of impact: “Above 80%,” “60–79%,” “40–59%,” “20–39%,” and “Under 19%.” The degree of impact was given 5 to 1 points accordingly. In addition, the demographic questions, such as gender, age, identity, nationality, school or affiliation, marital status, duration of learning Chinese in Japan, Taiwan, China and other countries, and self-evaluation on Chinese level, were also included in the Q-JLMLC. The Japanese CFL learners would be assessed by the Q-JLMLC on how motivated they are to learn Chinese.

Next, to measure the correlation of each item with the underlying construct, to differentiate between respondents having high total and low total scores on summated five-point Likert scale items [53], and to eliminate items which are not discriminative, the item analysis was run through IBM SPSS Statistics 24.0 for Windows in the present study. After that, internal consistency reliability analysis was utilized to judge how well the items on the Q-JLMLC that were proposed to measure the same construct produce similar results. In the item analysis, the critical ratio of extreme-group for items is \(p<.05\) which reaches the level of significance. This means the questions are able to precisely reflect the action of subjects. In test of homogeneity, the (corrected) item-total correlation of items is above .30, and this indicates that the corresponding item correlates very well with the scale overall [54] except Items 25 “I know that learning Chinese is important for me, but I do not enjoy learning it” (the critical ratio: 2.263 and the (corrected) item-total correlation: .120 (.098)), and 26 “I learn Chinese because learning Chinese is enjoyable.” (the critical ratio: 10.280 and the (corrected) item-total correlation: .287 (.258)), and \(p<.01\) which reaches the level of significance. The reliability value (Cronbach’s alpha if item deleted) of Items 23 “I learn Chinese because my Chinese teacher(s) is (are) good.”, 25, 26, 28 “I feel bad if I couldn’t perform well in Chinese classes.”, 41 “Learning Chinese is useful when I travel in Chinese-speaking countries.”, 44 “I learn Chinese because I am a Japanese-born Chinese.”, 61 “I learn Chinese to broaden my horizons.”, 64 “My parents want me to learn Chinese.”, 65 “Everybody in school has to learn Chinese.”, 66 “My teachers want me to learn Chinese.”, 73 “I learn Chinese to have a break from home or work routine.”, 75 “I learn Chinese to keep up with others in my family.”, 77 “I learn Chinese to get away from boredom.”, and 78 “I learn Chinese because my spouse wants me to learn it.” is not less than the Cronbach’s Alpha value .970. Hence, these items are eliminated and others are kept to run the exploratory and confirmatory factor analysis via the AMOS to analyze the types of Japanese learners’ motivations to learn Chinese.

4. Results

4.1 The Types of the Different Aged Japanese Learners’ Motivation for Learning Chinese

This study analyzed the types of the different aged Japanese learners’ motivations to learn Chinese by means of exploratory and confirmatory factor analysis. The purpose was both to extract common factors to classify the motivation types and to construct validity
of the scale. Thus, principal components analysis was utilized to estimate factor loadings. Normally, factor loadings should be larger than .40 [54,55]. Items, of which the factor loadings are lower than .40, would be eliminated because the items are invalid and have a low correlation with other items in the same common factor.

In the first exploratory factor analysis (EFA), the twelve common factors are extracted. The factor loadings of the items are larger than .40 except in Items 19 “I learn Chinese to make myself speak Chinese as well as native Chinese speakers do.”, 50 “I learn Chinese because no Chinese courses were offered during previous education.”, 63 “I learn Chinese to get entrance to another school or college.”, 9 “I learn Chinese because I am interested in Chinese literature.”, 32 “I learn Chinese because I feel good when I resolve the difficulties.”, 20 “I learn Chinese because I am interested in Chinese courses.”, 2 “I learn Chinese to write Chinese research papers comparable to those written by native Chinese speaking peers.” and 67 “I learn Chinese because I want people to think I can speak Chinese well.”. Also, at least 3 items in a common factor are necessary because one or two items will fail to reflect the feature of the common factor. Thus, in additional to items 19, 50, 63, 9, 32, 20, 2 and 67, Items 72“I learn Chinese because the people I am familiar with also learn Chinese.” and 71 “I learn Chinese because people I am acquainted with can speak Chinese fluently.” are also eliminated. The cumulative explained variance is 63.917%.

Based on the result of the first EFA, the rest of the 62 items are compiled by the second EFA. The result of the second factor analysis showed the elven common factors are extracted. The factor loadings of the items are larger than .40 except in Items 34 “I learn Chinese because I feel good when I do things well in Chinese.” and 37 “I learn Chinese to keep up with others who speak Chinese fluently.”. However, only items 16 “I learn Chinese because I can meet new people and make friends in the Chinese class.” and 17 “I learn Chinese because I like using Chinese to deal with difficulties.” are in the same common factor, so the two items are also eliminated in addition to Items 34 and 37. The cumulative explained variance is 65.109%.

Based on the result of the second EFA, the rest of the 58 items are compiled by the third EFA. The result shows that the factor loadings of the nine common factors extracted is larger than .40. The cumulative explained variance is 65.078%.

In order to test the factorial structure of observed variables and verify which observed variable is related to which latent variable, the confirmatory factor analysis (CFA) is run in this study. In the CFA, Item 3”Learning Chinese is a preparation for getting a job.”, 22“I learn Chinese because I want to be a good Chinese teacher.”, 24“I learn Chinese to quench my thirst for Chinese knowledge.”, 36“I learn Chinese because my Chinese textbooks are good.”, 39“I learn Chinese in order to pass a Chinese Band Test.”, 42“I learn Chinese in order to emigrate to Chinese-speaking countries.”, 43“I learn Chinese because I am interested in Chinese cultures.”, 45“I learn Chinese to overcome the frustration in daily life.”, 46“I learn Chinese because I want to increase the mutual understanding among peoples in the world.”, 53“I learn Chinese because I want to show my teachers that I can learn Chinese.”, 56“I learn Chinese to help my children learn Chinese.”, 58“I learn Chinese to increase my job competence.”, 69“I learn Chinese to get away from loneliness.”, 74“I learn Chinese to get ready for changes in my family.”, 76“I learn Chinese to find a good job later.”, 80“I feel bad if I couldn’t speak Chinese in Chinese classes.”, 84“I learn Chinese to feel a sense of achievement.”, 85“I learn Chinese because acquiring good Chinese skills is a stepping-stone to one's success in life.” and 86“I learn Chinese because learning Chinese can challenge me.” are eliminated according to modification indices (MI). This is because the concepts of these items are similar with other items, resulting in the GFI’s and AGFI’s values less than .8 and RMSEA larger than .08. Also, Items 1 “I learn Chinese to live up to a saying which goes, ‘Never too late to learn’.”, 29“I learn Chinese because it is easy to get credits in the Chinese class.”, 18“I learn Chinese because there are Chinese characters in Chinese and Japanese.”, 33“I learn Chinese because learning
Chinese is easier than learning English or other foreign languages.”, 35 “I learn Chinese because I like my fellow students in the Chinese class.” and 62 “I learn Chinese to feel occupied rather than doing nothing.” are eliminated because the SMC values are lower and these items resulted in Average Variance Extracted (AVE) less than .5, signifying the convergent validity is poor [55–57]. Figure 1 and Table 2 show the result of the CFA model after modifying.
Figure 1. Confirmatory factor analysis of the Q-JLMLC

Table 2. The CFA Result

| Latent variables | Observed variables | Standardized factor loadings | Squared Multiple Correlations (SMC) | Composite Reliability (CR) | Average Variance Extracted (AVE) |
|------------------|--------------------|------------------------------|-------------------------------------|---------------------------|----------------------------------|
| F1               | m4                 | .73                          | .53                                 | .86                       | .55                              |
|                  | m15                | .64                          | .42                                 |                           |                                  |
|                  | m38                | .72                          | .52                                 |                           |                                  |
|                  | m48                | .87                          | .76                                 |                           |                                  |
|                  | m49                | .71                          | .51                                 |                           |                                  |
| F2               | m40                | .53                          | .28                                 | .88                       | .61                              |
|                  | m54                | .89                          | .79                                 |                           |                                  |
|                  | m55                | .92                          | .84                                 |                           |                                  |
|                  | m57                | .86                          | .74                                 |                           |                                  |
|                  | m79                | .63                          | .40                                 |                           |                                  |
| F3               | m5                 | .82                          | .67                                 | .84                       | .52                              |
|                  | m6                 | .62                          | .38                                 |                           |                                  |
|                  | m7                 | .84                          | .70                                 |                           |                                  |
|                  | m8                 | .69                          | .47                                 |                           |                                  |
|                  | m81                | .63                          | .39                                 |                           |                                  |
| F4               | m21                | .84                          | .71                                 | .87                       | .62                              |
|                  | m27                | .83                          | .68                                 |                           |                                  |
|                  | m30                | .67                          | .45                                 |                           |                                  |
|                  | m31                | .79                          | .63                                 |                           |                                  |
| F5               | m10                | .69                          | .48                                 | .85                       | .60                              |
|                  | m11                | .52                          | .27                                 |                           |                                  |
|                  | m12                | .91                          | .83                                 |                           |                                  |
|                  | m13                | .90                          | .81                                 |                           |                                  |
| F6               | m70                | .65                          | .43                                 | .86                       | .69                              |
|                  | m82                | .90                          | .81                                 |                           |                                  |
|                  | m83                | .87                          | .76                                 |                           |                                  |
| F7               | m14                | .64                          | .41                                 | .80                       | .50                              |
|                  | m47                | .72                          | .52                                 |                           |                                  |
|                  | m51                | .66                          | .44                                 |                           |                                  |
|                  | m52                | .79                          | .63                                 |                           |                                  |
| F8               | m59                | .89                          | .78                                 | .87                       | .69                              |
|                  | m60                | .86                          | .75                                 |                           |                                  |
|                  | m68                | .73                          | .53                                 |                           |                                  |

Based on Figure 1, chi-square/df ratio is 3.649, less than 5, GFI and AGFI both are .852 and .822, larger than .8, respectively, and RMSEA is .066, falling in between .05 and .08. This fact proves the model fit is reasonable. In Table 2, all factor loadings are larger than
.5, signifying the relationship between each observed variable and the underlying factor (latent variable) is supported. Also, the CR’s and AVE’s values are larger than .70 and .50, respectively, signifying the convergent validity is supported.

Torkzadeh et al. [58] argued that if the confidence interval of the paired correlation doesn’t include the value of 1 following correlations among latent variables paired, the model’s discriminant validity is evidenced. Table 3 shows the result of computing the 95% confidence interval for the correlations between two latent variables via Bias-corrected percentile method.

Table 3. The Correlations between Two Latent Variables

| Parameter   | Estimate | Lower | Upper |
|-------------|----------|-------|-------|
| F1 <- F2    | .372**   | .307  | .449  |
| F1 <- F3    | .530*    | .433  | .632  |
| F1 <- F4    | .350**   | .270  | .438  |
| F1 <- F5    | .309**   | .208  | .403  |
| F1 <- F6    | .687*    | .589  | .748  |
| F1 <- F7    | .723*    | .632  | .781  |
| F1 <- F8    | .598*    | .517  | .651  |
| F2 <- F3    | .083     | -.026 | .178  |
| F2 <- F4    | .287*    | .182  | .378  |
| F2 <- F5    | .170**   | .081  | .247  |
| F2 <- F6    | .361**   | .282  | .443  |
| F2 <- F7    | .476*    | .385  | .542  |
| F2 <- F8    | .531**   | .446  | .599  |
| F3 <- F4    | .478**   | .414  | .546  |
| F3 <- F5    | .679**   | .610  | .734  |
| F3 <- F6    | .388*    | .305  | .465  |
| F3 <- F7    | .545*    | .451  | .617  |
| F3 <- F8    | .386*    | .302  | .453  |
| F4 <- F5    | .535**   | .462  | .603  |
| F4 <- F6    | .315*    | .218  | .382  |
| F4 <- F7    | .586**   | .488  | .660  |
| F4 <- F8    | .455*    | .365  | .542  |
| F5 <- F6    | .213*    | .119  | .310  |
| F5 <- F7    | .471**   | .367  | .546  |
| F5 <- F8    | .327*    | .237  | .402  |
| F6 <- F7    | .547*    | .452  | .639  |
| F6 <- F8    | .514*    | .426  | .584  |
| F7 <- F8    | .635*    | .542  | .698  |

Note: * stands for p<.05, ** stands for p<.01

Based on Table 3, correlations between two latent variables exit except “F2 v.s. F3”, but each value between lower bound and the upper bound does not contain 1, demonstrating discriminant validity is supported.

After item analysis, internal consistency reliability analysis, three-time EFA, and CFA, not only has reliability and validity of the Q-JLMLC proved to be good, but the eight common factors standing for eight types of Japanese learners’ motivation for learning Chinese are extracted. According to item description in the eight factors, the eight motivation types are named as follows:
Type 1: Instrumental motivation. Item descriptions that fall in this category are m4 “I learn Chinese to find better job opportunities.”, m15 “I learn Chinese because fluent Chinese is a symbol of good education and accomplishment.”, m38 “I learn Chinese because increasing Chinese proficiency will have financial benefits for me.”, m48 “Learning Chinese will give me higher status in my job.”, and m49 “I learn Chinese in order to achieve an occupational goal.”.

Type 2: Personal orientation. Item descriptions that fall in this category are m40 “I learn Chinese to win a scholarship to a university in Chinese speaking countries.”, m54 “Learning Chinese helps me communicate with my children.”, m55 “I learn Chinese to keep up with my children.”, m57 “I learn Chinese to answer questions asked by my children.”, and m79 “I learn Chinese to share a common interest with my spouse.”.

Type 3: Identified regulation. Item descriptions that fall in this category are m5 “I learn Chinese to better myself.”, m6 “I learn Chinese to find better education opportunities.”, m7 “I learn Chinese to become a better-educated person.”, m8 “I learn Chinese to get something meaningful out of life.”, and m81 “I learn Chinese because I like learning new things.”.

Type 4: Chinese cultural productions. Item descriptions that fall in this category are m21 “I learn Chinese because I am interested in Chinese TV shows.”, m27 “I learn Chinese because I am interested in Chinese movies.”, m30 “I learn Chinese to be able to read Chinese newspaper and magazines.”, and m31 “I learn Chinese because I am interested in Chinese songs.”.

Type 5: Integrating into Chinese community. Item descriptions that fall in this category are m10 “I learn Chinese to make friends with native Chinese speakers.”, m11 “I feel bad if I couldn't speak Chinese to my Chinese friends.”, m12 “I learn Chinese because I want to learn about Chinese customs.”, and m13 “I learn Chinese to know about how Chinese people live.”.

Type 6: External regulation. Item descriptions that fall in this category are m70 “I learn Chinese in order to obtain an academic degree.”, m82 “I learn Chinese in order to obtain high scores in examinations.”, and m83 “I learn Chinese to pass examinations.”.

Type 7: Social responsibility. Item descriptions that fall in this category are m14 “I learn Chinese to help people who cannot speak Chinese.”, m47 “I learn Chinese to let the world know more about my country.”, m51 “I learn Chinese because I want to be part of the Chinese resource in my country.”, and m52 “I learn Chinese because I can contribute to my country’s economic prosperity.”.

Type 8: Chinese for academic purposes. Item descriptions that fall in this category are m59 “I learn Chinese to communicate with international specialists in my own academic field.”, m60 “I learn Chinese to comprehend the research literature in my own academic field.”, and m68 “I learn Chinese to understand presentations presented in Chinese by international peers in conferences.”.

4.2 The Difference of Motivations to Learn Chinese among the Different Aged Japanese CFL Learners

Table 4 shows that at least one significant difference in the motivation for learning Chinese among the different aged Japanese learners following one-way ANOVA analysis (Wilk’s $\lambda=.606$, MANOVA $F=13.79$, $p=.000<.001$).
Table 4. Comparison of the motivation for learning Chinese among differently aged Japanese learners

| Groups                      | Children (n=167) | Adolescents (n=126) | Traditional adult learners (n=92) | Non-traditional adult learners (n=231) | F test | Scheffé |
|-----------------------------|------------------|---------------------|----------------------------------|---------------------------------------|--------|---------|
| Instrumental motivation     | M 3.37 SD 1.17   | M 3.21 SD 1.12      | M 3.50 SD .93                    | M 2.55 SD 1.20                        | 24.931*** | Children>Non-traditional adult learners  
Adolescents>Non-traditional adult learners  
Traditional adult learners>Non-traditional adult learners |
| Personal orientation        | M 1.82 SD 1.08   | M 1.69 SD .88       | M 1.47 SD .77                    | M 1.50 SD 1.01                        | 4.633**  | Children>Traditional adult learners  
Children >Non-traditional adult learners |
| Identified regulation       | M 3.51 SD 1.10   | M 3.27 SD 1.15      | M 4.02 SD .90                    | M 3.53 SD 1.05                        | 8.969*** | Traditional adult learners> Children  
Traditional adult learners>Adolescents  
Traditional adult learners>Non-traditional adult learners |
| Chinese Cultural productions| M 2.21 SD 1.16   | M 2.48 SD 1.33      | M 2.50 SD 1.15                   | M 2.70 SD 1.18                        | 5.346**  | Non-traditional adult learners>Children |
| Integrating into Chinese community | M 2.86 SD 1.17 | M 2.68 SD 1.18      | M 3.70 SD 1.00                   | M 3.37 SD 1.11                        | 21.273*** | Traditional adult learners>Children  
Traditional adult learners>Adolescents  
Non-traditional adult learners>Children  
Non-traditional adult learners>Adolescents |
| External regulation         | M 2.97 SD 1.41   | M 2.94 SD 1.41      | M 3.34 SD 1.12                   | M 2.01 SD 1.22                        | 32.814*** | Children>Non-traditional adult learners  
Adolescents>Non-traditional adult learners  
Traditional adult learners>Non-traditional adult learners |
| Social responsibility       | M 2.72 SD 1.20   | M 2.80 SD 1.14      | M 3.01 SD 1.07                   | M 2.35 SD 1.17                        | 9.045***  | Children>Non-traditional adult learners |

η² Observed Power

|            | .109  | 1.00 |
|------------|-------|------|
|            | .022  | .892 |
|            | .042  | .996 |
|            | .026  | .933 |
|            | .094  | 1.00 |
|            | .139  | 1.00 |
|            | .042  | .996 |
|                          | Adolescents>Non-traditional adult learners | Traditional adult learners>Non-traditional adult learners |
|--------------------------|-------------------------------------------|-----------------------------------------------------------|
| Chinese for academic purposes | 2.29<br>1.30<br>2.40<br>1.28<br>2.20<br>1.27<br>1.84<br>1.21 | 7.118***<br>Children>Non-traditional adult learners<br>Adolescents>Non-traditional adult learners 0.034<br>0.982 |
| Wilk’s λ = .606 | MANOVA F = 13.79*** |

Note: ** stands for p<.01, *** stands for p<.001
As shown in Table 4, the eight motivation types among the different aged Japanese learners of Chinese, based on the F values and p values less than .01, are significantly different following the one-way ANOVA analysis. After Scheffé’s method for multiple comparisons, this study revealed that the children’, adolescents’ and traditional adults’ instrumental motivation is significantly higher than that of the non-traditional adults. Also, $\eta^2$ is .109, which means that with age being the independent variable, the effect size is medium (explained variance is 10.9%). The observed power is 1.00, which means the probability of drawing the correct conclusion from a statistically significant result is 100%.

Secondly, this study revealed that the children’s personal orientation is significantly higher than the (non-) traditional adult learners’ one. Also, $\eta^2$ is .022, which means that with age being the independent variable, the effect size is small (explained variance is 2.2%). The observed power is .892, which means the probability of drawing the correct conclusion from a statistically significant result is 89.2%.

Thirdly, this study revealed that the traditional adults’ identified regulation (IR) is significantly higher than that of children’, adolescents’ and non-traditional adults’ one. Also, $\eta^2$ is .042, which means that with age being the independent variable, the effect size is small (explained variance is 4.2%). The observed power is .996, which means the probability of drawing the correct conclusion from a statistically significant result is 99.6%.

Fourthly, this study revealed that the non-traditional adults’ motivation for Chinese cultural productions is significantly higher than the children’ one. Also, $\eta^2$ is .026, which means that with age being the independent variable, the effect size is small (explained variance is 2.6%). The observed power is .933, which means the probability of drawing the correct conclusion from a statistically significant result is 93.3%.

Fifthly, this study revealed that the (non-)traditional adults’ integrative motivation into Chinese communities is significantly higher than the children’ and adolescents’ one. Also, $\eta^2$ is .094, which means that with age being the independent variable, the effect size is medium (explained variance is 9.4%). The observed power is 1.00, which means the probability of drawing the correct conclusion from a statistically significant result is 100%.

Sixthly, this study showed that the children’, adolescents’ and traditional adults’ ER is significantly higher than that of the non-traditional adults. Also, $\eta^2$ is .139, which means that with age being the independent variable, the effect size closes to large (explained variance is 13.9%). The observed power is 1.00, which means the probability of drawing the correct conclusion from a statistically significant result is 100%.

The same as the ER, this study also found that the children’, adolescents’ and traditional adults’ social responsibility is significantly higher than that of the non-traditional adults. Also, $\eta^2$ is .042, which means that age as independent variable, of which effect size is small (explained variance is 4.2%). The observed power is .996, which means the probability of drawing the correct conclusion from a statistically significant result is 99.6%.

Finally, this study revealed that the children’ and adolescents’ CAP is significantly higher than the non-traditional adults’ CAP. Also, $\eta^2$ is .034, which means that with age being the independent variable, the effect size is small (explained variance is 3.4%). The observed power is .982, which means the probability of drawing the correct conclusion from a statistically significant result is 98.2%.

5. Discussion
The main objective of the present study was to provide an effective treatment for sustainable Chinese language learning in Japan with comparing to understand motivations to learn Chinese as a foreign language among differently aged Japanese learners.

The results related to the types of the different aged Japanese learners’ motivation for learning Chinese showed that the eight motivation types were shared by Japanese learners. Type 1–Instrumental motivation was extracted a construct from five observed variables (m4, m15, m38, m48, and m49) of which meaning was a person is instrumentally motivated to learn a foreign language because of practical reasons, such as bettering jobs, obtaining
good education and accomplishment, and increasing financial benefits. The instrumental motivation of Japanese learners was consistent with those found in earlier studies [59, 60]. Type 2–Personal orientation was also found in previous research. For example, one of learning motivations in adulthood is family togetherness, concerned with bridging generation gaps and improving relationships in families [46]. Learning English to help one’s children learn English is one of observed variables in motivation for personal goals [49]. Xu and Gao [50] defined motivation for individual development as to enhance one’s competitiveness and improve one’s social status. Personal orientation, such as learning Chinese for oneself and significant others, are defined in this study according to the item descriptions. Type 3–Identified regulation, based on Deci et al. [61], was a more autonomous form of extrinsic motivation than introjected regulation. For Japanese learners, they had identified him/herself with the importance or value of what he/she performs. (e.g., learning Chinese for bettering oneself, for better education opportunities, for getting something meaningful, etc.). Type 4–Chinese cultural productions, line with Gardner’s integrative motivation [62], was a set of attitudes reflecting openness to target language cultural material, so interests in learning more about Chinese cultural elements, such as movies, songs, TV shows, newspapers and magazines, are found in Japanese learners’ motivation for learning Chinese. Type 5–Integrating into Chinese community, as part of integrative motivation, is a wish to know and to be integrated into a Chinese language community, according to Gardner’s definition [63]. Type 6–External regulation was a form of extrinsic motivation and the least self-determined. For example, learners might not want to fail the class and were trying to get a good grade on the test [64], so the three items (m70, m82, and m83) reflected Japanese learners’ motivation of external regulation while learning Chinese. Type 7–Social responsibility concurred with in Xu & Gao’s finding [50], in which the social responsibility is defined as learning a foreign language to contribute to home country’s prosperity, to let the world know more about home country, and to contribute to the mutual understanding among peoples in the world. Type 8–Chinese for academic purposes was extracted a construct from three observed variables (m59, m60, and m68). Not only did Xu and Gao [50] found that using English to obtain research information is one of Chinese university students’ motivation for learning English, but this study also found that learning Chinese for academic purposes is one motivation among the different aged Japanese learners.

Regarding the results related to the difference of motivations to learn Chinese among the different aged Japanese CFL learners, the present study found that the children’s, adolescents’ and traditional adults’ instrumental motivation is significantly higher than that of the non-traditional adults. The result is correlated with other studies that demonstrated that the age factor has an important role on motivation during foreign language acquisition. For example, young learners in Belgium are mostly motivated to learn French because it allows them to travel, to expand the boundaries of their social setting and also to increase the chances of finding employment after college, and young learners are a little more motivated than elder ones [65]. Hong and Ganapathy [60] used a qualitative case study via focus group interviews to elicit data from 12 students aged 16 in a secondary school in Penang and found that the students are more instrumentally motivated than integratively motivated in ESL learning. Secondly, the Japanese children’s personal orientation significantly higher than that of the Japanese (non-) traditional adult learners was found. The similar results can be found in previous research. For example, Xue and Chen [28] surveyed 140 primary and secondary school students in Chinese schools in Japan, and found nearly 70% of students were motivated to learn Chinese because of their parents’ encouragement, and 20.8% of them were motivated to learn Chinese for personal study and future jobs. Asmali [66] found parents, teachers, and favorable learning conditions and activities were important factors in determining Turkish pupils’ motivation to learn English. Adult learners’ motivation is typically self-directed, relevancy-oriented, and learner-ori-
ented [67,68], but the children found in this study have a stronger personal-oriented motivation to learn Chinese than other learners even though the degree of impact on their personal-oriented motivation is under 39%.

Compared with other age groups (children, adolescents, and non-traditional adult learners), more research focused on exploring Chinese learning motivation of traditional adult learners, signifying those who are full-time undergraduates aged 18-23, do not work or do part-time works, and have few, if any, family responsibilities. Zhang’s survey study [69] found 70.9% Japanese undergraduates learning Chinese because they think it is useful after entering society, and 53.5% of them are interested in China so they learn Chinese. Kuo’s cases studies [70] found three traditional adult learners’ motivations to learn Chinese are instrumental, inquisitive, and ideological, and two non-traditional adult learners are motivated integratively and interpersonally to learn Chinese. Tao [37] analyzed 328 Japanese university students’ motivation to learn Chinese and found 51.5% of them took Chinese courses because it is easy to get credits and male undergraduates’ motivation is higher than females. The second one is “to increase the opportunity for job promotion in the future”, accounting for 43.0%, and the third one is “to travel to China”, accounting for 41.8%. Also, the female undergraduates’ motivation for travelling to China is higher than males’. Previous research findings are not completely identical to this study, revealing that the traditional adults’ identified regulation (IR) is significantly higher than that of children’, adolescents’ and non-traditional adults’ one, but the traditional adults’ motivation for bettering themselves is proved again.

Compared with other related research, little research has focused on exploring learning Chinese motivation of non-traditional adult learners even though over half of the population are non-traditional adults [71]. Akçay et al. [72] found 22.61% Turkish young learners’ leading motivation to learn English is to talk to foreigners/tourists visiting their city, followed by entertainment, such as being fond of movies, songs, and computer games (16.67%). Ferrari [73] interviewed 26 adult learners of Italian aged 25-69 and found the main reasons to enroll in Italian courses are learning about “culture”, “art, architecture, history”, and attractiveness of Italian, and few reasons are learning Italian for “music and opera”, “fashion”, and “literature”. The above findings are not completely consistent with this study, revealing that the non-traditional adults’ motivation for Chinese cultural productions is significantly higher than the children’ one, but Hudson [74] found the majority (95%) of participants wished to learn English to improve their communication with English speakers, and to improve their understanding of the media, i.e. TV, radio and the press. Hudson’s finding echoes to that of this study. It proved that, therefore, exploring different subjects and target languages results in different research results.

Integrating into Chinese communities belongs to integrative motivation besides Chinese cultural productions. Hudson [74] gathered 44 adult learners aged from 18 to 55 and over via using the online survey ‘Survey Gizmo’ and found 91% wanted to learn English to be accepted and respected as members of English speaking society, while, 89% wished to learn English to make friends from different countries. A further 86% chose to learn the language to understand the culture and life of the English speaking society, and 82% needed the language to participate in local activities and events. Arthur and Beaton [75] found the majority of adult foreign language learners associate travel with reasons to learn. Childhood experiences and exposure to another language clearly matter because a surprising number of adults were exposed to aspects of foreign language or culture at one time in their childhood. Although the impact of such exposure on the adults who learn a foreign language for integrating into target community is not found, the present study corroborated that the Japanese (non-)traditional adults’ integrative motivation into Chinese communities is significantly higher than that of the Japanese children and adolescents.

With respect to the external regulation (ER), Noels et al. [76] analyzed the motivational orientations to learn a second language of the 159 students whose age went from 18
to 50 and registered in English psychology classes at a French-English bilingual university, and found that “external regulation” (M=3.94, SD=1.45), second to “IR”, influences the students to learn a second language. Also, the ER had no correlations with the criterion variables (Freedom of Choice and Perceived Competence), but IR was strongly correlated with the criterion variables. Aydogan [77] found the ER is one extrinsic motivation that influences 300 students, aged 17-23 and whose English levels were quite good, to learn English by using exploratory factor analysis. This finding of the children’, adolescents’ and traditional adults’ ER significantly higher than that of the non-traditional adults was similar to the previous research results, and the present study analyzed the differences among the different aged Japanese learners’ ER motivation to fill in the knowledge gap.

As for social responsibility, Wentzel [78] reported teacher support was a positive predictor of both types of interest and of social responsibility goal pursuit. Gao et al. [79] used an exploratory factor analysis to study 2,278 undergraduates from 30 universities in 29 regions of China, and found the social responsibility is not only one of the undergraduates’ motivation to learn English, but the English majors whose scores are also higher on intrinsic interest, social responsibility, individual development, and information medium than that of the non-English majors. Although the surveyed subjects and target languages in this study differ from the previous studies, they found an echo in each other.

In respect to learning a foreign language for academic the number of non-native students studying in English-medium universities has increased over the past decade and the issues in English for academic purposes (EAP) have lasted over 35 years. However, no research-based volume has investigated the theoretical issues and pedagogical concerns of the area [80]. Not only does this problem exist in EAP but also in Chinese for academic purposes (CAP). With population of non-native Chinese speakers studying in China and Taiwan for obtaining academic degrees increasing in recent years, CAP courses are offered [81]. Nevertheless, no research is conducted in CAP except EAP. Xu and Gao [50] found as far as over 1300 students from five Chinese universities are concerned, the EAP is one of motivation to learn English, but no correlation was found between the EAP motivation and their identities through a questionnaire in a four-year longitudinal study. Another research indicated that 70% of the Master of Arts students have never taken any academic writing course before and want a new course which provides them with generic features for writing a research article/thesis [82]. To fill the knowledge gap of little research focusing on CAP motivation of learners under 18 years old, the present study found that the Japanese children’ and adolescents’ CAP is significantly higher than the Japanese non-traditional adults’ CAP.

6. Conclusions

A lot of research on motivation to learn a foreign language has been conducted for many years, and are still kept exploring. This academic phenomenon displays the issue has been of high importance. This is because that understanding learners’ motivation to learn a foreign language is beneficial for a teacher not only to select an appropriate textbook, but also to use applicable teaching strategies to increase the learners’ motivation.

Each Japanese learner studying Chinese language is an independent individual, and their motivation to participate in Chinese language programs is multiple and complicated. The fact has been proven not only by previous research but also by this study. This study categorized Japanese learners’ eight types of motivation, including 1) “instrumental motivation”, 2) “personal orientation”, 3) “identified regulation”, 4) “Chinese cultural productions”, 5) “integrating into Chinese community”, 6) “external regulation”, 7) “social responsibility”, and 8) Chinese for academic purposes, via reliable and valid evidence. This study also reveals that the instrumental motivation in Japanese children, adolescents, and traditional adult learners are significantly higher than that in non-traditional adult learners. Japanese children are significantly higher in the personal-oriented motivation than traditional and non-traditional adult learners respectively. However, traditional
adult learners are significantly higher in the identified regulation than children, adolescents, and non-traditional adult learners; non-traditional adult learners are significantly higher in Chinese cultural productions than children, and traditional and non-traditional adult learners are significantly higher in integrating into Chinese communities than children and adolescents respectively. Children, adolescents, and traditional adult learners are respectively significantly higher in the external regulation and social responsibility than non-traditional adult learners. Finally, children and adolescents are significantly higher in Chinese for academic purposes than non-traditional adult learners, but no significant difference exits in two groups of aged adult learners.

Findings from various studies on motivation to learn Chinese language or other foreign languages are not only diverse but also changing [75], so perfect and universal teaching principles virtually do not exist. This study contributes the understanding of motivation types and differences among the four aged Japanese learners to TCSOL teachers and future research. TCSOL teachers are advised to pay attention to each learner’s motivation, to deliberate how to effectively use these motivational factors in teaching the four different aged Japanese learners Chinese language, so that their motivation can be maintained. Moreover, while extrinsic motivation has a negative predictive effect on students’ academic achievement, intrinsic motivation has positive predictive effects [83]. So it is important for future research to explore how differently aged Japanese learners can have a higher intrinsic motivation and use it as a main drive to learn Chinese as a lifelong business.

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### Appendix A

**Questionnaire for Japanese Learners’ Motivation toward Learning Chinese** (Q-JLMLC)

| Item                                                                 | Degree of Impact |
|----------------------------------------------------------------------|------------------|
| I learn Chinese to live up to a saying which goes, "Never too late to learn". | Above 80%       |
| I learn Chinese to write Chinese research papers comparable to those written by native Chinese speaking peers. | 60~79%  |
| Learning Chinese is a preparation for getting a job.                 | 40~59%          |
| I learn Chinese to find better job opportunities.                    | 20~39%          |
| I learn Chinese to better myself.                                    | Under 19%       |
| I learn Chinese to find better education opportunities.              |                  |
| I learn Chinese to become a better-educated person.                  |                  |
| I learn Chinese to find better job opportunities.                    |                  |
| I learn Chinese to become a better-educated person.                  |                  |

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9. Because I am interested in Chinese literature, I learn Chinese.

10. I want to make friends with native Chinese speakers.

11. If I can't speak Chinese to my Chinese friends, I feel bad.

12. I want to learn about Chinese customs.

13. I want to know how Chinese people live.

14. I want to help people who can't speak Chinese.

15. I believe fluent Chinese is a symbol of good education and accomplishment.

16. I can meet new people and make friends in the Chinese class.

17. I like using Chinese to deal with difficulties.

18. I learn Chinese because I can read, write, and speak Chinese.

| Question                                                                 | Above 80% | 60–79% | 40–59% | 20–39% | Under 19% |
|--------------------------------------------------------------------------|-----------|---------|--------|--------|-----------|
| I learn Chinese to get something meaningful out of life.                 |   □       |        |        |        | □         |
| I learn Chinese because I am interested in Chinese literature.           |   □       | □       | □      | □      | □         |
| I learn Chinese to make friends with native Chinese speakers.           |   □       | □       | □      | □      | □         |
| I feel bad if I couldn't speak Chinese to my Chinese friends.            |   □       | □       | □      | □      | □         |
| I learn Chinese because I want to learn about Chinese customs.           |   □       | □       | □      | □      | □         |
| I learn Chinese to know about how Chinese people live.                   |   □       | □       | □      | □      | □         |
| I learn Chinese to help people who cannot speak Chinese.                 |   □       | □       | □      | □      | □         |
| I believe fluent Chinese is a symbol of good education and accomplishment.|   □       | □       | □      | □      | □         |
| I can meet new people and make friends in the Chinese class.             |   □       | □       | □      | □      | □         |
| I like using Chinese to deal with difficulties.                          |   □       | □       | □      | □      | □         |
| I can read, write, and speak Chinese.                                    |   □       | □       | □      | □      | □         |
| 句子                                                   | 答案选项 |
|--------------------------------------------------------|----------|
| 中国語と日本語はどちらも漢字があるので、中国語を学んでいます。 | 80%以上  |
| I learn Chinese because there are Chinese characters in Chinese and Japanese.  |
| 19.我学華語文的目標是能跟母語者说得一樣好。 | Above 80%  |
| 中国語ネイティブの人と同じくらい中国語が上手になるために、中国語を学んでいます。 | 60–79%   |
| I learn Chinese to make myself speak Chinese as well as native Chinese speakers do.  |
| 20.因為我對華語文課程有興趣，所以我學華語文。 | Above 80%  |
| 中国語のカリキュラムに興味があるので、中国語を学んでいます。 | 60–79%   |
| I learn Chinese because I am interested in Chinese courses.  |
| 21.因為我對華人電視节目有興趣，所以我學華語文。 | Above 80%  |
| 中国語のテレビ番組に興味があるので、中国語を学んでいます。 | 60–79%   |
| I learn Chinese because I am interested in Chinese TV shows.  |
| 22.因為我想成為一位好的華語文教師，所以我學華語文。 | Above 80%  |
| いい中国語の先生になりたいので、中国語を学んでいます。 | 60–79%   |
| I learn Chinese because I want to be a good Chinese teacher.  |
| 23.因為我的華語文老師很好，所以我學華語文。 | Above 80%  |
| 中国語の先生は人柄に惹かれて、私は中国語を学んでいます。 | 60–79%   |
| I learn Chinese because my Chinese teacher(s) is (are) good.  |
| 24.我學華語文是為了滿足對華語文知識的探究。 | Above 80%  |
| 中国語の知識を深めていきたいために、中国語を学んでいます。 | 60–79%   |
| I learn Chinese to quench my thirst for Chinese knowledge.  |
| 25.我知道學華語文是重要的，但我卻無法樂在其中。 | Above 80%  |
| 中国語の勉強は大事だと理解してはいますが、勉強は楽しくありません。 | 60–79%   |
| I know that learning Chinese is important for me, but I do not enjoy learning it.  |
| 26.我學華語文是因為學習華語文很愉快。 | Above 80%  |
| 中国語の勉強は楽しいので、中国語を学んでいます。 | 60–79%   |
| I learn Chinese because learning Chinese is enjoyable.  |
| 27.因為我對華人電影有興趣，所以我學華語文。 | Above 80%  |
| 中国語の映画に興味があるので、中国語を学んでいます。 | 60–79%   |
| I learn Chinese because I am interested in Chinese movies.  |
| 28.如果我在華語文課表現不好，我會覺得不舒服。 | Above 60–79%  |
| 中国語の営業に悪いと感じてはいますが、勉強は楽しくありません。 | 40–59%   |
| I know that learning Chinese is important for me, but I do not enjoy learning it.  |
| ページ | 文字通りの翻訳 |
|---|---|
| 22 | 中国語の授業で上手に発言できないと、落ち込んだり悔しい気持ちします。I feel bad if I couldn't perform well in Chinese classes. |
| 29 | 因為華語文課是一門營養學分，所以我學華語文。I learn Chinese because it is easy to get credits in the Chinese class. |
| 30 | 我學華語文是為了讀懂華語文報章雜誌。I learn Chinese to be able to read Chinese newspaper and magazines. |
| 31 | 因為我對華語文歌曲有興趣，所以我學華語文。I learn Chinese because I am interested in Chinese songs. |
| 32 | 當我弄懂華語文的難點時，我感覺很好，所以我學華語文。I learn Chinese because I feel good when I resolve the difficulties. |
| 33 | 因為華語文比學英文或其他外語更容易，所以我學華語文。I learn Chinese because learning Chinese is easier than learning English or other foreign languages. |
| 34 | 我學華語文是為了能跟上華語文說得流利的人。I learn Chinese because I want to keep up with people who speak Chinese fluently. |
| 35 | 我學華語文是因為我喜歡華語文課的同學。I learn Chinese because I like my fellow students in the Chinese class. |
| 36 | 我學華語文是因為華語文教科書的質量很好。I learn Chinese because my Chinese textbooks are good. |
| 37 | 我學華語文是為了能跟上華語文說得流利的人。I learn Chinese because I want to keep up with people who speak Chinese fluently. |
|   | I learn Chinese to keep up with others who speak Chinese fluently. | □ | □ | □ | □ | □ |
|---|---|---|---|---|---|---|
| 38. | 因为提升华语文能力有正面的经济效果，所以我学华语文。 中国语文能力を伸ばすことが、金銭的な利益に繋がるので、中国語を学んでいます。 | □ | □ | □ | □ | □ |
| 39. | 我学华语文是为了通过华语文能力测验。 中国语文能力試験に合格するために、中国語を学んでいます。 | Above 80% 以上 □ | □ | □ | □ | □ |
| 40. | 我学华语文是為了取得華人國家的大學獎學金。 中国語圏の大学で奨学金を取得するために、中国語を学んでいます。 | Above 80% 以上 □ | □ | □ | □ | □ |
| 41. | 学华语文對我到华人国家旅遊是有幫助的。 中国語圏の国へ旅行する時に便利なので、中国語を学んでいます。 Learning Chinese is useful when I travel in Chinese-speaking countries. | Above 80% 以上 □ | □ | □ | □ | □ |
| 42. | 我学华语文是為了要移民到華人國家。 中国語圏の国へ移民するために、中国語を学んでいます。 I learn Chinese in order to emigrate to Chinese-speaking countries. | Above 80% 以上 □ | □ | □ | □ | □ |
| 43. | 因为我对华文化有兴趣，所以我学华语文。 中華文化に興味があるので，中国語を学んでいます。 I learn Chinese because I am interested in Chinese cultures. | Above 80% 以上 □ | □ | □ | □ | □ |
| 44. | 因为我是華裔，所以我学华语文。 中華系日本人なので，中国語を学んでいます。 I learn Chinese because I am a Japanese-born Chinese. | Above 80% 以上 □ | □ | □ | □ | □ |
| 45. | 我学华语文是為了克服日常生活中的挫折。 日常生活の不満や失敗を克服するために、中国語を学んでいます。 I learn Chinese to overcome the frustration in daily life. | Above 80% 以上 □ | □ | □ | □ | □ |
| 46. | 因为我想增进全世界人们相互理解，所以我学华语文。 世界中の人々の相互理解を助けるために、中国語を学んでいます。 I learn Chinese because I want to increase the mutual understanding among peoples in the world. | Above 80% 以上 □ | □ | □ | □ | □ |
| 47. | 我学华语文是為了讓世界各国更了解我的国家。 | Above 60–79% 40–59% 20–39% Under 19% 以下 □ | □ | □ | □ | □ |
| Question                                                                 | Percentage Options |
|-------------------------------------------------------------------------|--------------------|
| I learn Chinese to let the world know more about my country.            | 80% above         |
| 48. Learning Chinese will give me higher status in my job.              | 60-79% above       |
| 49. I learn Chinese in order to achieve an occupational goal.           | 60-79% above       |
| 50. I learn Chinese because no Chinese courses were offered             | 60-79% above       |
| 51. I learn Chinese because I want to be part of the Chinese resource   | 60-79% above       |
| 52. I learn Chinese because I can contribute to my country’s economic   | 60-79% above       |
| 53. I learn Chinese because I want to show my teachers that I can       | 60-79% above       |
| 54. Learning Chinese helps me communicate with my children.             | 60-79% above       |
| 55. I learn Chinese to keep up with my children.                       | 60-79% above       |
| 56. I learn Chinese to help my children learn Chinese.                  | 60-79% above       |
| No. | Statement in Chinese                                                                 | Statement in English                                                                 | Above 80% | 60~79% | 40~59% | 20~39% | Under 19% |
|-----|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-----------|---------|---------|---------|-----------|
| 57. | 我學華語文是為了回答我小孩的問題。自己的子供の質問に答えられるように、中国語を学んでいます。 | I learn Chinese to answer questions asked by my children.                           | 60~79%    | 40~59% | 20~39% | Under 19% |
| 58. | 我學華語文是為了提升我的工作能力。自分の仕事のスキルアップのために、中国語を学んでいます。 | I learn Chinese to increase my job competence.                                      | 60~79%    | 40~59% | 20~39% | Under 19% |
| 59. | 我學華語文是為了和我所屬學術領域的國際先進溝通。自分の研究分野の学者や専門家とコミュニケーションを取るために、中国語を学んでいます。 | I learn Chinese to communicate with international specialists in my own academic field. | 60~79%    | 40~59% | 20~39% | Under 19% |
| 60. | 我學華語文是為了讀懂我所屬學術領域的研究文獻。自分の研究分野の研究文獻を読むために、中国語を学んでいます。 | I learn Chinese to comprehend the research literature in my own academic field.       | 60~79%    | 40~59% | 20~39% | Under 19% |
| 61. | 我學華語文是為了開闊視野。自分の視野を広げるために、中国語を学んでいます。 | I learn Chinese to broaden my horizons.                                              | 60~79%    | 40~59% | 20~39% | Under 19% |
| 62. | 我學華語文是可以做點什麼，總比什麼事都沒做來得好。何もせずにいるより何かしていたほうがいいと思うので、中国語を学んでいます。 | I learn Chinese to feel occupied rather than doing nothing.                          | 60~79%    | 40~59% | 20~39% | Under 19% |
| 63. | 我學華語文是為了進到另一所學校或大學就讀。別の学校や大学に入るために、中国語を学んでいます。 | I learn Chinese to get entrance to another school or college.                        | 60~79%    | 40~59% | 20~39% | Under 19% |
| 64. | 我父母要我學華語文。私の両親が私に中国語を勉強してほしいと思っています。 | My parents want me to learn Chinese.                                                 | 60~79%    | 40~59% | 20~39% | Under 19% |
| 65. | 我學校的學生都要學華語文。私の学校の学生は皆・中国語を学ばなければならない。 | Everybody in school has to learn Chinese.                                           | 60~79%    | 40~59% | 20~39% | Under 19% |
| 66. | 我的師長要我學華語文。私の教師が私に中国語を勉強してほしいと思っています。 | My teachers want me to learn Chinese.                                               | 60~79%    | 40~59% | 20~39% | Under 19% |
| 67. 我想讓大家知道我說華語文說得很好，所以我學華語文。 | Above 80% 以上 □ | 60~79% □ | 40~59% □ | 20~39% □ | Under 19% 以下 □ |
| 68. 我學華語文是為了了解國際同儕在研討會上用華語文發表的簡報。 | Above 80% 以上 □ | 60~79% □ | 40~59% □ | 20~39% □ | Under 19% 以下 □ |
| 69. 我學華語文是為了想獨自面對孤寂。 | Above 80% 以上 □ | 60~79% □ | 40~59% □ | 20~39% □ | Under 19% 以下 □ |
| 70. 我學華語文是為了取得學位。 | Above 80% 以上 □ | 60~79% □ | 40~59% □ | 20~39% □ | Under 19% 以下 □ |
| 71. 我學華語文是為了跟上家裡的其他人。 | Above 80% 以上 □ | 60~79% □ | 40~59% □ | 20~39% □ | Under 19% 以下 □ |
| 72. 我學華語文是為了以後找到好的工作。 | Above 80% 以上 □ | 60~79% □ | 40~59% □ | 20~39% □ | Under 19% 以下 □ |

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|   |   |   |   |   |
|---|---|---|---|---|
| I learn Chinese to find a good job later. |   |   |   |   |
| 77. 我学華語文是為了避免無聊。 | □ | □ | □ | □ |
| 以上 | □ | □ | □ | □ |
| 以下 | □ | □ | □ | □ |
| I learn Chinese to get away from boredom. | Above 80% | 60~79% | 40~59% | 20~39% | Under 19% |
| 78. 因为我的另一半要我学華語文，所以我学華語文。 | □ | □ | □ | □ |
| 配偶者が私に中国語を学んでほしいと思っているので、中国語を学んでいます。 | □ | □ | □ | □ |
| I learn Chinese because my spouse wants me to learn it. | Above 80% | 60~79% | 40~59% | 20~39% | Under 19% |
| 79. 我學華語文是為了和另一半分享共通的興趣。 | □ | □ | □ | □ |
| 配偶者と同じ趣味を共有するために、中国語を学んでいます。 | □ | □ | □ | □ |
| I learn Chinese to share a common interest with my spouse. | Above 80% | 60~79% | 40~59% | 20~39% | Under 19% |
| 80. 如果在華語文課裡不能說華語文，我會覺得不高興。 | □ | □ | □ | □ |
| 授業中で中国語を発話しないと、落ち込んだり悔しかったりします。 | □ | □ | □ | □ |
| I feel bad if I couldn't speak Chinese in Chinese classes. | Above 80% | 60~79% | 40~59% | 20~39% | Under 19% |
| 81. 因為我喜歡學習新知，所以我學華語文。 | □ | □ | □ | □ |
| 新しい知識を学ぶことが好きなので、中国語を学んでいます。 | □ | □ | □ | □ |
| I learn Chinese because I like learning new things. | Above 80% | 60~79% | 40~59% | 20~39% | Under 19% |
| 82. 我學華語文是為了考試得高分。 | □ | □ | □ | □ |
| 試験で良い点数を取るために、中国語を学んでいます。 | □ | □ | □ | □ |
| I learn Chinese in order to obtain high scores in examinations. | Above 80% | 60~79% | 40~59% | 20~39% | Under 19% |
| 83. 我學華語文是為了通過考試。 | □ | □ | □ | □ |
| 試験に合格するために、中国語を学んでいます。 | □ | □ | □ | □ |
| I learn Chinese to pass examinations. | Above 80% | 60~79% | 40~59% | 20~39% | Under 19% |
| 84. 我學華語文是為了得到成就感。 | □ | □ | □ | □ |
| 達成感がほしいために、中国語を学んでいます。 | □ | □ | □ | □ |
| I learn Chinese to feel a sense of achievement. | Above 80% | 60~79% | 40~59% | 20~39% | Under 19% |
| 85. 因為獲得好的華語文技能是人生成功的墊腳石，所以我學華語文。 | □ | □ | □ | □ |
| 優れた中国語のスキルを身につけることは、人生を成功へと導く足がかりになるので、中国語を学んでいます。 | □ | □ | □ | □ |
| I learn Chinese because acquiring good Chinese skills is a stepping-stone to one's success in life. | Above 80% | 60~79% | 40~59% | 20~39% | Under 19% |
| 86. 因為我想挑戰一個有難度的外語，所以我學華語文。 | □ | □ | □ | □ |
|   | Above 60~79% | 40~59% | 20~39% | Under 19% |
I learn Chinese because learning Chinese can challenge me.

Note: All items in this Q-JLMLC for formal survey were revised and scrambled based on the expert judgement.

二、個人基本資料　個人のプロフィール　Personal profile

1. 性別　Gender：□男　Male　□女　Female

2. 年齢　Age：歳　years old

3. 身分　Identity：
□小学生　Pupil
□中学生　Middle school student
□高中生　High school student
□専門学校生　Junior college student
□大学生　Undergraduate
□修士課程在学中　Postgraduate
□博士課程在学中 Doctoral student/ candidate
□上班族　Office worker
□退職者　Retiree
□その他　Others:

4. 国籍　Nationality：
□日本人　Japanese
□日本華裔　Japanese-born Chinese
□日本亞裔　Japanese-born Asian
□その他　Others:

5. 現就讀學校或服務單位：
School or affiliation:

6. 婚姻歴　Marital status：
□已婚　Married：
另一半是哪國人？
配偶者是誰？
Nationality of your spouse?
育有子女幾位？
子供何人いますか。男　名、女　名
Number of children?
Boy           Girl

小孩是否也在學華語文？□是  □否
子供も中国語を学んでいますか。□はい  □いいえ

Are your children learning Chinese now? □Yes   □No

未婚 未婚

□未婚 未婚

其他 その他

□other:

7.在日本的華語文學習時間： 年 個月 小時
日本での中国語学習期間： 年 ヶ月 時間

How long have you learned Chinese in Japan? Year(s) month(s) hour(s)

8.在哪些國家學過華語文?

Where else have you learned Chinese?

□台灣：華語文學習時間： 年 個月 小時
□台湾：中国語学習期間： 年 ヶ月 時間

□Taiwan: How long? year(s) month(s) hour(s)

□中國大陸：華語文學習時間： 年 個月 小時
□中国：中国語学習期間： 年 ヶ月 時間

□Mainland China: How long? year(s) month(s) hour(s)

□其他： 華語文學習時間： 年 個月 小時

□その他：中国語学習期間： 年 ヶ月 時間

□Others: How long? year(s) month(s) hour(s)

9.自評華語文程度（若考過中國語檢定・中國的 HSK 或臺灣的 TOCFL，請依通過的程度填寫）：

中国語能力の自己評価（日本の中国語検定・中国の HSK・台湾の TOCFLに合格している人は、合格した級に応じたレベルを記入して下さい。）：

Self-evaluation on Chinese level (Please tick the item “Testing Chinese Proficiency, Japan”, HSK, or TOCFL if you passed any of them):

聽：□零起點 □初級 □中級 □高級 □其他：

聞く：□ゼロ □初級 □中級 □上級 □その他：

Listening: □Zero □Basic □Intermediate □Advanced □Others:

說：□零起點 □初級 □中級 □高級 □其他：

話す：□ゼロ □初級 □中級 □上級 □その他：

Speaking: □Zero □Basic □Intermediate □Advanced □Others:

讀：□零起點 □初級 □中級 □高級 □其他：

読む：□ゼロ □初級 □中級 □上級 □その他：

Reading: □Zero □Basic □Intermediate □Advanced □Others:

寫：□零起點 □初級 □中級 □高級 □其他：

書く：□ゼロ □初級 □中級 □上級 □その他：

Writing: □Zero □Basic □Intermediate □Advanced □Others:

綜合：□零起點 □初級 □中級 □高級 □其他：

総合: □Zero □Basic □Intermediate □Advanced □Others:

Note: All items in this Q-JLMLC for formal survey were revised and scrambled based on the expert judgement.
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