A Comparative Study: Motivation of Learners of Japanese

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Abstract
This study reports on the motivation of learners of Japanese in four universities across two countries, focusing specifically on the: 1) diversity of motivation in the process of language learning; 2) motivation as a predictor of academic achievement; 3) dichotomous instrumental/integrative paradigm; and 4) comparison of the degree of motivation among the universities. Three out of four universities did not show significant differences in the degree of motivation within an academic year. However, the outcomes were varied depending on the universities in comparing motivation among students enrolled in different course levels. Positive motivation and anxiety were found to be the best predictors of academic achievement. With regard to the integrative/instrumental dichotomy, neither element was seen as a better predictor. This research identifies a contrast: the type of institution where students studied, i.e. in prestigious institutions in urban areas or in standard institutions in rural districts, greatly influenced the factors motivating the learners.

1 Introduction

Suki koso mono no jozu nare (what you like you will do well in). This Japanese saying clearly points out that motivation is the “driving force in any situation” (Gardner, 2001a, p. 6). Motivation is a prominent element in pursuing anything in our lives. “The truly motivated individual displays effort, desire, and affect” (Gardner, 2001b, p. 10). One of the investigators of this study has taught Japanese at a number of universities located in Australian urban centers as well as at one located in a small city in the U.S. and recognizes huge differences between the conditions experienced by the students in terms of socio-cultural and socio-economic factors, educational and administrative systems, and so forth. In the big cities, both in the U.S and Australia, there are many Japanese residents, many Japanese tourists and many Japanese companies trading in the local market. On the other hand, in the small cities and rural areas in both countries we hardly see even Japanese tourists. Compared to the urban centers, Japanese communities are quite small, with fewer Japanese residents and companies. It was postulated that the varying Japanese presence within the diverse
environments would significantly affect student motivation. Student data were collected by three investigators teaching Japanese at four universities: two universities located in metropolitan areas and one in a suburb in Australia, and one in a small city in the US. The purpose of this study was, thus, to determine whether student motivation and attitudes toward Japanese learning would be greatly different when compared among different universities located in different regions in different countries.

2 Theoretical background

2.1 Motivation of L2 learners

Many second/foreign language (L2) researchers in the past have reported that motivation is a key factor determining the rate and success of L2 acquisition (Dörnyei, 2001). Oxford and Shearin (1996) comment that “L2 learning is a complex process in which motivation plays a major role” (p. 144). Dörnyei notes from his experience that “99 per cent of language learners who really want to learn a foreign language (i.e. who are really motivated) will be able to master a reasonable working knowledge of it” (p. 2). People are generally highly motivated at the outset when they decide to accomplish some tasks. However, because of obstacles encountered on the way or for various other reasons, they often give up. It is indeed difficult to continue to persevere with learning the same thing over a long period until one masters it.

A few decades after Gardner and Lambert established their motivation theory in the 1950s, Dörnyei (2001) claimed “L2 motivation research is currently flourishing” (p. 52). However, research into the motivation of learners of Japanese is still less reported in the L2 acquisition research field than for learners of the European languages. Also, the effect of where the L2 is taught appears to be neglected: little is published on studies comparing the degree of motivation (“motivation degree”) among different tertiary institutions. The present study took the opportunity afforded by the different institutions situated in different regions in two countries to investigate the motivation degree of learners of Japanese. This comparison is significant because in the U.S., Japanese is ranked sixth among the fifteen more commonly taught languages in higher institutions (Welles, 2004), whereas in Australia, Japanese is regarded as one of the priority foreign languages for teaching and learning at all levels.

2.2 Comparison of motivation degree among course levels

When students commence learning a language, their instructors hope that they will reach the top level and go on to master the language. However several studies show that L2 learners have a high attrition rate, especially when their native or first language (L1) is English and they are learning Japanese/or Chinese as L2 (Kato, 2001, 2002; Saito & Samimy, 1996; Van Aacken, 2003; Watt, 1997). Yet, if the initial enthusiasm for learning, i.e. high motivation, could be retained throughout a course of learning, students would be more likely to achieve their language goals. It would be beneficial then for instructors to know whether advanced students are more enthusiastic and satisfied with their learning experience or whether they are more worried and uncomfortable in comparison with beginning or intermediate students.

It is a well established view that some degree of anxiety can lead to enhanced performance. Such anxiety is known as facilitating anxiety. Its opposite, debilitating anxiety, degrades performance in many ways (Gardner, 2001b; Gardner, Tremblay & Mascoret, 1997; Scarcella & Oxford, 1992; Scovel, 1991). Only the latter form of anxiety, i.e. debilitating anxiety, is discussed here and anxiety for the present study implies the latter, performance-inhibiting, type of negative emotion.

Gardner’s study shows the close relationship between motivation and anxiety (debilitating anxiety). Students in his study were classified in terms of final grades into three groups (A, B, and C). A and B group students had higher scores on motivation and lower scores on language anxiety than those in the C group, and C group students showed the opposite pattern. How does motivation
or anxiety degree vary during the course of language learning? Are students highly motivated to learn when they begin (the first semester), or later on (the second semester)? For C group students in Gardner’s study, scores on anxiety became higher in the second than in the first semester, but A group students showed the opposite pattern.

Samimy and Tabuse (1992) investigated language anxiety of tertiary-level students who learned Japanese. In comparing anxiety levels between the first and the second semesters, anxiety significantly increased in the second semester. They concluded that students were found to be significantly less interested in learning Japanese and expressed more discomfort and more negative attitudes toward it in the second than in the first semester.

Saito and Samimy (1996) examined anxiety in university students learning Japanese in beginning, intermediate and advanced courses. They reported that “advanced students scored highest in anxiety, intermediate students the lowest, and beginning students fell between the other two” (p. 247). Onwuegbuzie, Bailey and Daley (1997) focused on the foreign language anxiety of university students enrolled in four different foreign languages: French, Spanish, German and Japanese. Their research suggested that beginning students were found to have the lowest levels of anxiety, which increased linearly as a function of year of study. A point in common between these two studies is that anxiety was the highest in the advanced students.

In contrast to the above studies, the following two studies reported different outcomes. Schmidt, Boraie and Kasabgy (1996) investigated L2 learners’ motivation in private English courses in Egypt. They found that “advanced learners enjoy English class the most; basic level students enjoy learning English the least and are the most anxious” (p. 51). Another study by Kato (in press) also found that advanced L2 learners of Spanish, French and German were significantly motivated compared to the lower levels. Anxiety level of elementary Spanish learners was the highest among the three levels.

In view of the conflicting outcomes reported in the literature, it was decided to explore whether learners in four universities would exhibit similar or varied patterns of anxiety and motivation degree.

2.3 Best predictor

MacIntyre and Gardner (1991) focus on anxiety among several sorts of motivation and present a clear understanding that "anxiety is a predictor of success in language class" (p. 42). A study conducted by Van der Walt and Dreyer (1997) supports MacIntyre and Gardner, finding that both foreign language anxiety and classroom anxiety were the most important predictors of language proficiency. Saito and Samimy (1996) also report that anxiety was the best predictor of the final grade of intermediate and advanced level Japanese students in their university. Other studies also report that learners’ anxiety highly influenced academic achievement (Alderman, 1999; Kato, 2001, 2002), final grades (Aida, 1994), and L2 performance at both the Input and Output stages (MacIntyre & Gardner, 1994). Anxiety level was observed to be the best predictor of these outcomes.

The present study examined whether the established theory, i.e. that learners’ anxiety was the best determinant of students’ success, applied to all four universities.

2.4 Dichotomous instrumental and integrative paradigm

Since the 1950s, when Gardner and his colleagues conducted their motivation research, many motivation researchers have argued over a dichotomous paradigm, i.e. the priority of integrative or instrumental motivation, and reported conflicting outcomes. A learner with integrative motivation wishes to identify with the ethnic group and a learner with instrumental motivation learns a language for practical purposes, e.g. getting a job, meeting an educational requirement (Gardner & Lambert, 1972).

Results on which type of motivation leads to success in second language learning have been mixed. For example, Gardner and Lambert (1972) hypothesise that instrumental motive is less
effective than integrative motive. Larsen-Freeman and Long (1991) point out that some researchers, such as Spolsky (1969), agree that second language learning acquisition is dependent on the learner’s desire to join the society: i.e. integrative motivation is more effective for their learning than instrumental motivation. On the other hand, Lukmani (1972), for example, found that instrumental motivation led to more successful second language achievement than did integrative motivation. Although Dörnyei’s early study (1990) specified that the two forms of motivation were less influential in language achievement than other aspects of motivation, in his recent study (2001), integrativeness was found to be the most important predictor of language choice. In another study, instrumental motivation was found to be a better predictor of student’s success than integrative motivation (Chihara & Ollar, 1978).

As illustrated above, there are still unresolved issues in motivation research. The present study especially focuses on the arguments in the past and attempts to address the following research questions:

1. Does motivation degree increase or decrease within an academic year (as the course progresses)?
2. In which course level, lower or higher, are students highly motivated?
3. Which factor is the best predictor of academic achievement?
4. Which element of the dichotomous paradigm, integrative or instrumental motivation, is the better predictor of academic achievement?
5. What differences can be found in the motivation degree of learners of Japanese among four universities situated in different regions?

3 Methodology

3.1 Participants

The participants were drawn from three Australian (A1, A2 and A3) and one American (U1) university. A2 and A1 are Australia’s two oldest universities (established in 1850 and 1855, respectively) and are located in the largest and the second largest cities in Australia. Over 40,000 students are currently enrolled at each of these two universities. A3 was founded in 1938 and became fully independent in 1954. A3 is the first Australian university established outside a capital city and over 17,000 students are enrolled there. U1 was established in 1949 and is located in a small city in the U.S. Over 20,000 students are enrolled in U1. A1 provides students with 6 levels of Japanese courses, i.e., from levels 1 to 6, A2 and A3 provide students with five levels of Japanese courses, i.e. from levels 1 to 5, whereas U1 provides students with only three levels. While at U1 the students represented the full range of academic years, at A1 the participating students were drawn from levels 1 to 5, at A2 from levels 2, 3 and 5, and at A3 from levels 1 to 3. Students from these universities generally learn Japanese as a major or a minor, fulfilling a degree requirement or satisfying a personal interest. Curriculums of the four universities are found to be relatively similar among the universities (see Appendix 1).

The years when the studies were conducted varied among the four universities: At A1 and A2 surveys were administered in 2000, at A3 in 2001, and at U1 in 2002. A total of 1,277 completed questionnaires were collected from students over the three years 2000–2002. Table 1 gives particulars of the participants in this study.
Table 1: Description of 1,277 Participants

As shown in Table 1, the age range of the participants was between 18 and 40, with the majority of the students being within the 18 to 25 age range, except for A3, where over half of the students were over 30 years old. This university (A3) provides distance education besides courses conducted on campus, thus attracting many adult students whose careers prevent them from attending full time on campus. Table 1 also shows that in the Australian universities the female to male ratio was 70:30, whereas in U1 it was 42:58. The gender ratio is the same as the ratio reported by Saito and Samimy (1996) for their study in the U.S. (female to male ratio 42:58). Further, student data collected at U1 in the 2006 academic year have a female to male ratio of 35:65. This suggests that in the U.S., male students seem to be more attracted to learning Japanese than female students.

3.2 Procedures

A questionnaire developed by Schmidt et al. (1996) was modified for use in this study (see Appendix 2). Question items which were inappropriate for university students were excluded. Finally, 49 question items were employed, with a 5-point Likert-type response scale ranging from Strongly agree (5 points) to Strongly disagree (1 point). Due to unavailability of necessary information, 140 of the 1,277 completed questionnaires were discarded, so that 1,137 questionnaires were used in the final analysis.

The student’s final examination marks were used as an indicator of academic achievement. The questionnaires were completed in the Japanese class at the end of the first and the second semesters within one academic year.

3.3 Analysis

The 1,137 student questionnaires were subjected to a principal components analysis (PCA) to reduce a large number of variables down to a smaller number of components. PCA is commonly used as a preliminary extraction technique followed by other procedures – orthogonal (varimax) or oblique rotations – in order to increase interpretability (Tabachnick & Fidell, 1996). Nine factors were extracted as important and retained for interpretation. As suggested by Tabachnick and Fidell, items with loadings greater than 0.32 (i.e. 10% overlapping variance) were retained for inter-
Reliability analysis was performed to see the internal consistency reliability of the components using the Cronbach’s alpha coefficient. The higher value of Cronbach’s alpha coefficient indicates higher internal consistency among the set of items categorized in the same factor. The analysis indicated that the alpha of one factor became higher (Cronbach’s alpha coefficient=.76) by eliminating Q25 rather than keeping it in a group (Cronbach’s alpha coefficient=.46), and thus Q25 was eliminated, resulting in 48 question items remaining. A discussion of why Q25 was eliminated is included in the section dealing with Factor III. Means and standard deviations of 48 question items are categorized in nine factors.

Eleven items loaded on the first factor (with loadings ranging from 0.38 to 0.73). Many items such as enjoy, like, best effort, and challenge were included in this group. As these items appeared to focus on positive forms of motivation, e.g. “I really enjoyed learning Japanese,” “I like the subject matter of this course,” “Japanese class is a challenge that I enjoy,” this factor was labeled Positive.

Factor II included 8 items (0.45 to 0.71), which generally focused on anxiety-based forms of motivation, such as “I am worried about my ability to do well in this class,” “I had uneasy, upset feeling when I take an exam,” “I feel more tense and nervous in Japanese class than in my other subject.” As these sources of motivation appeared to convey feelings of anxiety, this factor was labeled Anxiety.

Seven items loaded on Factor III (0.51 to 0.73). Many of these items were related to language itself, e.g. the sounds of Japanese, vocabulary words, Japanese grammar, good language learner. As a result, this factor was labeled Aptitude. However, reliability analysis indicated that internal consistency is higher without Q25 (“I am worried about my ability to do well in this class”). In considering the content of this item, Q25 appears to relate to worrying about the ability and is different from the concept of Aptitude. The statistics solution is understandable and thus Q25 was eliminated.

Six items were identified as Factor IV (0.33 to 0.74). These items dealt with student interest in learning foreign languages including Japanese, e.g. “I would like to learn several foreign languages,” “Studying foreign languages is an important part of education,” “Japanese is important to me because it will broaden my world view.” As a result, this factor was named Interest.

Factor V comprised 7 items (0.23 to 0.73), which concerned communication, social ties, or interest in culture, e.g. “I am learning Japanese to be able to communicate with friends who speak it,” “I want to be more a part of the cultural group that speaks Japanese.” Given that these motives appeared to relate to the desire to integrate the use of the language into everyday situations, this factor was named Integrative.

Four items were included in Factor VI (0.43 to 0.76). All of the four items indicate a strong motivation to work hard in learning Japanese even if it is difficult, i.e. “I work hard in this class even when I don’t like what we are doing,” “I can truly put my best effort into learning Japanese.” As a result, this factor was named M.Strength (stands for motivational strength).

Factor VII comprised three items (0.63 to 0.70). Three items show that students learn Japanese with a greater purpose in mind or as an instrument to fulfill personal goals, i.e. “Increasing my Japanese proficiency will have financial benefits for me,” “Being able to speak Japanese will add to my social status.” This factor was labeled Instrumental.

Three items loaded on Factor VIII (0.66 to 0.69), which focuses on a preferred learning mode of students, cooperativity, i.e. “I learn best in a cooperative environment,” “I like language learning activities in which students work together in pairs or small groups.” Thus this factor was named Cooperative.

Lastly two items were included in Factor IX (0.66 and 0.70). Both items also focus on a preferred learning mode, specifically the competitive learning method, i.e. “I learn best when I am
competing with other students,” “I want to do better than the other students in this class,” and thus this factor was labeled Competitive.

Question items were computed by summing up the scores of the items loading on each factor. The scores summed up in each factor were then divided by the number of the items in order to obtain composite scores of each factor. As a result the score in each factor is in the range 1 to 5.

4 Results

Five research questions are raised in the present study. Results of the questions are shown in order.

4.1 Research Question 1

Does the motivation degree increase or decrease within an academic year (as the course progresses)?

ANOVA (nine-way analysis of variance) was conducted for each university, yielding four nine-way ANOVA, to determine whether scores of nine factors among the same individuals differed between the two semesters. The first variable (independent variable) was semester, i.e. semesters 1 and 2, and the second variable (dependent variable) consisted of the scores of nine factors. Table 2 shows results of the ANOVAs.

<table>
<thead>
<tr>
<th>Factor</th>
<th>A2</th>
<th>A3</th>
<th>U1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive</td>
<td>.168</td>
<td>.455</td>
<td>.147</td>
</tr>
<tr>
<td>Anxiety</td>
<td>.026</td>
<td>.230</td>
<td>.007</td>
</tr>
<tr>
<td>Aptitude</td>
<td>.012</td>
<td>.129</td>
<td>.314</td>
</tr>
<tr>
<td>Interest</td>
<td>.145</td>
<td>1.186</td>
<td>1.020</td>
</tr>
<tr>
<td>Integrative</td>
<td>.054</td>
<td>.103</td>
<td>.117</td>
</tr>
<tr>
<td>Instrumental</td>
<td>.270</td>
<td>.594</td>
<td>.453</td>
</tr>
<tr>
<td>M.Strength</td>
<td>.363</td>
<td>5.536*</td>
<td>.049</td>
</tr>
<tr>
<td>Cooperative</td>
<td>.009</td>
<td>.195</td>
<td>.084</td>
</tr>
<tr>
<td>Competitive</td>
<td>.577</td>
<td>2.927</td>
<td>.162</td>
</tr>
</tbody>
</table>

*p<.05

Table 2: Analysis of Variance on Nine Factors by Semesters 1 and 2

As indicated in Table 2, none of the scores of the nine factors except A2 was significantly different within an academic year. Only one factor in A2, M.Strength, at the significance level of .05 was found to be considerably different between the two semesters and the scores decreased in Semester 2. This indicates that the learners’ motivational strength reduced significantly in the second semester at A2. Learners in the study by Samimy and Tabuse (1992) also showed the same tendency. However, in the current study, this is the case with only one among 36 factors, while the other three universities did not show any significant decline in motivation, suggesting that the outcome of the current study was not in line with their conclusion. Instead, motivation degree in the present study was not found to change dramatically over the short term, i.e. within an academic year.

4.2 Research Question 2

In which course level, lower or higher, are students highly motivated?

A consistent ANOVA procedure was performed for each university, producing four one-way ANOVAs. Scores of the nine factors were used as the dependent variable and course level was the
independent variable. The tests were conducted to determine whether motivation degree varied among different course levels, followed by a post-hoc comparison of means using the Tukey’s HSD test to identify how the differences lie. Tables 3 and 4 show the results of the ANOVA and the Tukey’s HSD test, respectively.

<table>
<thead>
<tr>
<th></th>
<th>A1 n=660, df=4</th>
<th>A2 n=223, df</th>
<th>A3 n=120, df=2</th>
<th>U1 n=132, df=2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive</td>
<td>12.604**</td>
<td>1.356</td>
<td>8.059**</td>
<td>.332</td>
</tr>
<tr>
<td>Anxiety</td>
<td>3.525**</td>
<td>6.254**</td>
<td>.046</td>
<td>4.342*</td>
</tr>
<tr>
<td>Aptitude</td>
<td>2.941*</td>
<td>5.767**</td>
<td>2.673</td>
<td>.121</td>
</tr>
<tr>
<td>Interest</td>
<td>6.093**</td>
<td>.507</td>
<td>1.249</td>
<td>1.004</td>
</tr>
<tr>
<td>Integrative</td>
<td>2.471*</td>
<td>2.709</td>
<td>.927</td>
<td>1.959</td>
</tr>
<tr>
<td>Instrumental</td>
<td>.121</td>
<td>.043</td>
<td>.703</td>
<td>.162</td>
</tr>
<tr>
<td>M.Strength</td>
<td>9.379**</td>
<td>.785</td>
<td>1.567</td>
<td>2.585</td>
</tr>
<tr>
<td>Cooperative</td>
<td>.323</td>
<td>4.524*</td>
<td>1.859</td>
<td>.510</td>
</tr>
<tr>
<td>Competitive</td>
<td>.894</td>
<td>3.806*</td>
<td>.466</td>
<td>1.241</td>
</tr>
</tbody>
</table>

* p<.05, ** p<.01

**Table 3: Analysis of Variance on Nine Factors by Course Levels**

<table>
<thead>
<tr>
<th></th>
<th>A1</th>
<th>A2</th>
<th>A3</th>
<th>U1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive</td>
<td>3&lt;5,2,4&lt;1</td>
<td>-</td>
<td>3&lt;2,1</td>
<td>-</td>
</tr>
<tr>
<td>Anxiety</td>
<td>1&lt; (2,3) 4,5</td>
<td>4,2&lt;3</td>
<td>-</td>
<td>2&lt;1,3</td>
</tr>
<tr>
<td>Aptitude</td>
<td>1&lt; (2,3,4) 5</td>
<td>3&lt;2,4</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Interest</td>
<td>1&lt; (3,2) 4,5</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Integrative</td>
<td>2 (3,4,1) &lt;5</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>M.Strength</td>
<td>3,2,1&lt;4,5</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Cooperative</td>
<td>4&lt;2,3</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Competitive</td>
<td>-</td>
<td>3&lt;4,2</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

* p<.01

**Notes:**
1. Numbers indicate course levels. The number at the left is the lowest motivation degree, gradually increasing toward the right, and the number at the right indicates the highest degree. Course levels within a parenthesis are not significantly different from one another.
2. ‘<’ indicates that motivation degree of the left hand course level(s) is(are) significantly lower than the right hand course level(s).
3. ‘-’ shows that motivation degree was not significantly varied among course levels.

**Table 4: Digest of Tukey’s Test : Major Differences among Course Levels**

As indicated in Tables 3 & 4, six factors in A1 and four factors in A2 were observed to be significantly different among five and three course levels respectively, whereas only one factor in each of the other two universities was found to be different. In comparing lower and higher levels, Tukey’s HSD tests clearly show differences between level 1 vs levels 4 and 5 at A1, that is, level 1 learners scored highest in Positive and lowest in Anxiety, Aptitude, Interest, whereas the higher level students scored highest in Anxiety, Aptitude, Integrative, Interest and M.Strength. It indicates that while the lower stage learners, i.e. level 1, tremendously enjoyed learning Japanese with less anxiety, the higher stage learners, i.e. levels 4 and 5, were extremely confident in their language abilities, significantly interested in Japanese, with much effort being made to master the language with much anxiety. A3 coincides with the feature of A1, i.e. the lower level, i.e. level 1, learners were extremely pleased with learning Japanese.

In relation to Anxiety, students in level 3 at A1, A2 and U1 were, interestingly, found to be the highest. Considering course levels offered in the four universities is an important factor in this analysis. According to the authors’ experiences in teaching at four universities, level 3 in each university is simply the 3rd year of the Japanese learning. Further, Saito and Samimy’s study...
(1996) reported that “advanced students scored highest in anxiety” (p. 247), yet “advanced” in their study means students in their 3rd and 4th year of learning Japanese. All of the above outcomes thus indicate that students in the 3rd year of learning Japanese appeared to be the most worried.

4.3 **Research Question 3**

*Which factor is the best predictor of academic achievement?*

Stepwise multiple regression analysis was used to identify which factor predicted or contributed best to student academic achievement in each university. Nine factors were used as independent variables and final exam scores as a dependent variable. Through this analysis the nine independent variables were converted into comparable units called beta weight, i.e. standardized regression coefficients, to determine which of the nine variables is the best predictor to indicate a dependent variable (such as academic achievement). The largest beta weight, disregarding whether the beta weight is positive or negative, is the best predictor. Alternatively, a small beta weight indicates that the corresponding independent variable, i.e. motivation factor, does not contribute to academic achievement significantly when compared to other variables. Multiple correlations and beta weights are presented in Table 5.

<table>
<thead>
<tr>
<th></th>
<th>R</th>
<th>F1</th>
<th>F2</th>
<th>F3</th>
<th>F4</th>
<th>F5</th>
<th>F6</th>
<th>F7</th>
<th>F8</th>
<th>F9</th>
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<tbody>
<tr>
<td>A1</td>
<td>.45</td>
<td>.06</td>
<td>-.21</td>
<td>.15</td>
<td>-.03</td>
<td>.05</td>
<td>-.14</td>
<td>.13</td>
<td>-.06</td>
<td>.10</td>
</tr>
<tr>
<td>A2</td>
<td>.36</td>
<td>-.05</td>
<td>-.21</td>
<td>.03</td>
<td>.01</td>
<td>-.11</td>
<td>-.06</td>
<td>.03</td>
<td>.05</td>
<td>.20</td>
</tr>
<tr>
<td>A3</td>
<td>.52</td>
<td>-.39</td>
<td>-.34</td>
<td>.20</td>
<td>-.02</td>
<td>.28</td>
<td>-.14</td>
<td>.19</td>
<td>-.32</td>
<td>-.10</td>
</tr>
<tr>
<td>U1</td>
<td>.38</td>
<td>.05</td>
<td>.07</td>
<td>.10</td>
<td>.19</td>
<td>-.05</td>
<td>.00</td>
<td>.22</td>
<td>.07</td>
<td>.01</td>
</tr>
</tbody>
</table>

**Notes:** R–coefficient of multiple correlation, F1-Positive, F2-Anxiety, F3-Aptitude, F4-Interest, F5-Integrative, F6-Instrumental, F7-M.Strength, F8-Cooperative, F9-Competitive. Best predictor is indicated using bold type font.

**Table 5: Stepwise Regression Analysis for Final Exam Scores by Nine Factors (Beta Weights for Predictors)**

Table 5 reveals that *Anxiety* was identified as the best predictor of the academic achievement in A1 and A2 and as the second best in A3. This outcome corroborates many past studies. However, the present study also brings to light the contrasting prospect: *Positive* in A3 and *M.Strength* in U1 were seen to be the most influential factors; in particular, *Anxiety* was found to be the 4th or 5th predictor in U1, indicating that *Anxiety* affected the achievement to an inconsiderable extent.

4.4 **Research Question 4**

*Which element of the dichotomous paradigm, integrative or instrumental motivation, is the better predictor of academic achievement?*

Outcomes of the regression analysis performed for Research Question 3 were employed in order to respond to the question. Ranking of the two factors, i.e., *Integrative* and *Instrumental*, for the four universities is listed in Table 6.

<table>
<thead>
<tr>
<th></th>
<th>Integrative</th>
<th>Instrumental</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1:</td>
<td>8th predictor</td>
<td>3rd predictor</td>
</tr>
<tr>
<td>A2:</td>
<td>3rd predictor</td>
<td>4th predictor</td>
</tr>
<tr>
<td>A3:</td>
<td>4th predictor</td>
<td>8th predictor</td>
</tr>
<tr>
<td>U1:</td>
<td>7th predictor</td>
<td>9th predictor</td>
</tr>
</tbody>
</table>

**Table 6: Ranking – Integrative vs Instrumental**
As shown in Table 6, Instrumental predicted academic achievement better than Integrative in A1. However, this outcome was reversed in the other three universities. As pointed out above, many conflicting findings about this issue have been reported in the L2 learning field. The present study also found conflicting outcomes, implying that these results either sustain both sides of the arguments or do not support either side.

4.5 Research Question 5

What differences can be found in the motivation degree of learners of Japanese among four universities and two countries?

An ANOVA followed by a post hoc test (Tukey’s HSD test) was used to examine the differences in motivation degree among the four universities. Four universities were used as independent variables and nine factors as dependent variables. Tables 7 and 8 show the outcomes of the ANOVA and Tukey’s HSD test, respectively.

<table>
<thead>
<tr>
<th>Factors</th>
<th>A1</th>
<th>A2</th>
<th>A3</th>
<th>U1</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>Positive</td>
<td>3.60</td>
<td>.57</td>
<td>3.76</td>
<td>.50</td>
</tr>
<tr>
<td>Anxiety</td>
<td>2.84</td>
<td>.75</td>
<td>2.72</td>
<td>.70</td>
</tr>
<tr>
<td>Aptitude</td>
<td>3.06</td>
<td>.63</td>
<td>3.12</td>
<td>.61</td>
</tr>
<tr>
<td>Interest</td>
<td>4.16</td>
<td>.54</td>
<td>4.10</td>
<td>.56</td>
</tr>
<tr>
<td>Integrative</td>
<td>3.18</td>
<td>.69</td>
<td>3.32</td>
<td>.71</td>
</tr>
<tr>
<td>Instrumental</td>
<td>3.25</td>
<td>.82</td>
<td>3.57</td>
<td>.77</td>
</tr>
<tr>
<td>M.Strength</td>
<td>3.40</td>
<td>.69</td>
<td>3.41</td>
<td>.63</td>
</tr>
<tr>
<td>Cooperative</td>
<td>3.65</td>
<td>.64</td>
<td>3.63</td>
<td>.69</td>
</tr>
<tr>
<td>Competitive</td>
<td>3.06</td>
<td>.89</td>
<td>3.30</td>
<td>.87</td>
</tr>
</tbody>
</table>

* p<.05 ** p<.001, df=3, N=1,137

Table 7: Analysis of Variance on Nine Factors by Four Universities

Table 8: Digest of Tukey’s HSD Test: Major Differences among Four Universities

As can be seen in Table 7, significant differences (p<.001) were found in seven of the nine factors. The Tukey’s HSD test (Table 8) interestingly illustrates a pattern in which four universities were grouped into two pairs in five factors, for example, A1 and A2 versus A3 and U1. Four out of six factors indicate the following: 1) concerning three forward-looking factors, Positive, Aptitude, Interest and M.Strength, scores of A1 and A2 were found to be significantly lower than A3 and U1; and 2) conversely scores of Anxiety of A1 and A2 were found to be significantly higher than in A3 and U1. An interpretation of this unique outcome is presented in the “Discussion” section below. Scores on the Competitive variable in A3 are the lowest and those on M.Strength the highest. Distance education clearly appears to introduce special characteristics to the A3 participants. In addition, students in A2 and U1 seem to study Japanese for more practical reasons. Further, the above results do not reveal any contrast between one U.S. and three Australian universities.
5 Discussion

Comparing the motivation degree among the course levels, the results were diverse depending on the university, and a specific pattern could not be identified in this study. Lower level learners in A1 and A3 found the course most enjoyable compared with other levels. This result conflicts with findings by Schmidt et al. (1996) that “basic level students enjoy learning English the least” (p. 51), and Kato (in press) that advanced level students in Spanish, French and German were the most pleased in learning their respective foreign language. In terms of Anxiety one point in common between outcomes of this study and the research of Saito and Samimy (1996) is that students in the 3rd year of Japanese learning at A1, A2 and U1 were found to be more worried, and to feel more uncomfortable, uneasy and nervous in learning Japanese compared to students at other levels. These outcomes suggest that the 3rd year of learning Japanese was found to be most difficult by Japanese learners. These results do not sustain the findings of the study by Schmidt et al. that “basic level students…are the most anxious” (p. 51) and by MacIntyre and Gardner (1991) that “as experience and proficiency increase, anxiety declines in a fairly consistent manner” (p. 111). Saito and Samimy suggested that this may be interpretable as a difference between learning cognate languages (which are historically derived from the same source) and non-cognate language as L2. Obviously Japanese is a non-cognate language to English. In Schmidt et al.’s study students learned English as an L2 in Egypt, where the official language is Arabic. English is a non-cognate language to Arabic, which belongs to the Afro-Asiatic language group. Alternatively, in MacIntyre and Gardner’s study, participants learned French as an L2 in anglophone Canada, and French is a cognate language to English. This suggests that the issue of cognate vs. non-cognate language was found to be irrelevant to the causes of the different outcomes. Obviously, not only the difference between cognate and non-cognate language but many other factors such as teaching method/materials, class size, contact hours, and other educational and non-educational factors influence learners. Depending on such an environment learners’ motivation or anxiety degree would be varied. This may be one of the reasons that motivation is seen as a complex concept (Gardner, 2001).

As expected, Anxiety was found to play an important role in the students’ academic achievement. Considering the outcomes, anxiety truly affected students’ success. This is in line with previous studies. The present study, however, revealed another outcome. Positive and M.Strength were also identified as the best predictors at A3 and U1 respectively. Additionally Anxiety at U1 was found to be an insignificant influence on learners’ success. A special feature of the participants seen at U1 is the gender ratio mentioned earlier. More male than female learners enrolled in the Japanese program only at U1. Past studies (Aida, 1994; Oxford, Park-Oh, Ito & Sumrall, 1993) generally reported that female learners were more motivated and performed more highly than male learners. Therefore in order to determine whether gender difference influenced student anxiety or motivation, ANOVA procedures were performed at all four universities using the scores of Anxiety, Positive and M.Strength (which were extracted by the above analysis) as dependent variables and “gender” as an independent variable. Table 9 shows the results of ANOVA.

<table>
<thead>
<tr>
<th></th>
<th>A1 (n=659, df=1)</th>
<th>A2 (n=222, df=1)</th>
<th>A3 (n=113, df=1)</th>
<th>U1 (n=131, df=1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anxiety</td>
<td>4.270*</td>
<td>.374</td>
<td>1.107</td>
<td>.048</td>
</tr>
<tr>
<td>Positive</td>
<td>.113</td>
<td>.216</td>
<td>1.442</td>
<td>.138</td>
</tr>
<tr>
<td>M.Strength</td>
<td>5.583*</td>
<td>.130</td>
<td>8.418**</td>
<td>1.826</td>
</tr>
</tbody>
</table>

*p<.05, **p<.01

Table 9: Analysis of Variance on Anxiety by Gender Difference

As seen in Table 9, the female learners’ motivation was found to be significantly stronger than the male learners’ motivation in A1 and A3 and they were also significantly anxious compared to
the male learners only in A1, suggesting gender difference contributed to the degree of Anxiety and M.Strength only at A1 and A3. However, neither U1 (more male learners) nor A2 (more female learners) revealed such differences. This indicates that, depending on the institution, features and factors other than gender also influenced learner’s motivation.

In relation to the question: which of Gardner’s dichotomous factors, Integrative and Instrumental, is the better predictor of academic success, the results in this study are inconclusive. It can be said that Integrative is not always a better predictor than Instrumental and vice versa, suggesting that either one can/should not be identified as a better predictor to academic achievement than the other. Further, these factors seem to be less influential with regard to language achievement. This is in line with Dörnyei’s early study (1990).

A crucial finding of this research came from the comparison of motivation degree, when four universities were divided into two groups: A1 and A2 (Group 1) versus A3 and U1 (Group 2). In Group 2 Anxiety is significantly lower and Positive, Aptitude and M.Strength are significantly higher than in Group 1. Students in Group 2 found Japanese learning more enjoyable, were more strongly motivated, and felt less anxious than their counterparts in Group 1. In this light, students in Group 2 seemed to feel more relaxed and easier in studying Japanese than students in Group 1. Considering the differences between the two groups of participants (see Table 1 and Appendix 1), the following distinction seems to be significant: A1 and A2 have more students enrolled in the program, are each a sort of a mammoth university known as “flagships,” – traditional universities with long histories. On the other hand, A3 and U1 are non-flagship, fairly new universities. The second point can be regarded as a contrast, urban versus rural district. A1 and A2 are located in the two largest cities in Australia, and A3 and U1 are situated respectively in a rural area in Australia and a small city in the U.S. Lastly, one more mark of the difference between the two groups is the grade system: relative assessment (Group 1) versus absolute assessment (Group 2). In relation to relative assessment, for example, the top 10% of the students in each class could have grade A. Conversely, in absolute assessment all students who gain over 90 points could achieve A. Therefore students in Group 1 may have had a tendency to become more tense and competitive compared to students in Group 2. Needless to say, there are numerous factors that influence student motivation, such as socio-cultural aspects, educational environment, and teaching method. However, the above differences observed between the two groups may have an influential effect on student motivation and contribute to the differences.

The outcomes for the A3 participants, the highest M.Strength and the lowest Competitive, clearly indicate that more than half of the students engaged in distance education are characterized by strong motivation to achieve their purpose, since they are required to study by themselves without a teacher in front and classmates around them. Also, the absence of physical contact with competing students would explain the low Competitive scores for the A3.

6 Conclusion

One of the purposes of this research was to explore at which course level the learners were highly motivated. This study shows that the motivation degree of learners at three out of four universities did not significantly change within an academic year, but did vary among the course levels, and that this pattern differed according to the university. Some of these findings support past studies and some differences of opinion. We conclude that there may not be a definite sequence and that student motivation fluctuates according to the various conditions prevailing in particular institutions.

One point this study and one of the past studies have in common is that the 3rd year learners of Japanese felt the most uncomfortable and worried. According to the authors’ teaching experiences, Japanese grammar itself at the lower level is not as difficult as at the higher level, in which more difficult Japanese language concepts are introduced, e.g. the honorific system. However, after overcoming the most difficult phase of Japanese learning in the 3rd year, students may have be-
come used to the difficulties and the differences from L1 and become more relaxed. This may be one of the causes of this outcome. Further studies are needed to explore this hypothesis.

As many researchers have reported in the past, anxiety was clearly observed as a determinant of academic achievement. One of the crucial findings of this study is that positive motivation and motivational strength were also identified as a major determinant of achievement. Concerning the controversy about the relative importance of integrative and instrumental motivation, this study has confirmed the established view among L2 motivation researchers that neither is definitely a better predictor of academic success than the other. The effect of each differs depending on the institution. Moreover, neither motivation factor had a great effect on academic achievement.

A critical finding of this research is that a contrast between prestigious traditional institutions located in urban cities and fairly new institutions in small cities was brought to light. One U.S. university, located in the Southeast of the U.S., is not necessarily a “typical” American university and it would be unreasonable to compare the two countries on this basis. This study, however, suggests that similar local academic environments may be an influential factor for understanding student motivation rather than the particular country in which the university is sited.

Notes
1 Levels of difficulty and the contents of final examinations varied depending on the universities. Scores of the examinations were not used to make comparisons among the four universities and were used to find the correlation coefficients with nine factors within each university. Thus the examination scores were used as the dependent variables.
2 All the variance in the observed variables is analyzed in principal component analysis, while in factor analysis only shared variance is analyzed.

Acknowledgements
We wish to express our gratitude to the staff and the students of the Japanese Programs at four universities from 2000 to 2002 academic years. Special thanks go to Dr Julia Read, who provided great assistance to us.

Appendices

Appendix 1: Curriculum

<table>
<thead>
<tr>
<th></th>
<th>A1</th>
<th>A2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Level 1</strong></td>
<td><strong>Level 2</strong></td>
</tr>
<tr>
<td></td>
<td>- develop basic 4 skills in the context of daily activities</td>
<td>- develop communication skills in understanding and speaking Japanese in variety of everyday situations</td>
</tr>
<tr>
<td></td>
<td>- understand basic socio-cultural aspects of the language</td>
<td>- understand socio-cultural aspects integrated with the language.</td>
</tr>
<tr>
<td></td>
<td>- read and write short passages in Japanese</td>
<td>- read and write short passages in Japanese</td>
</tr>
<tr>
<td></td>
<td>- learn word-processing skill</td>
<td>- write a minimum of 300 kanji and recognize 400 kanji</td>
</tr>
<tr>
<td></td>
<td>- read and write hiragana, katakana and 153 kanji (Chinese characters)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Level 2</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- expand 4 skills further in the context of everyday situations</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- learn basic grammatical structures</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- understand socio-cultural aspects of the language</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- read and write short passages in Japanese</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- write 366 kanji</td>
<td></td>
</tr>
</tbody>
</table>
| Level 3 | - develop 4 skills further in the context of everyday situations  
- understand various aspects of Japanese culture  
- read longer, more complex texts in Japanese  
- write 587 kanji | - develop and extend communication skills  
- understand socio-cultural aspects integrated with the language  
- read Japanese text on a variety of topics and write a well structured short essay in Japanese  
- write a minimum of 500 kanji and recognise 850 kanji |
| Level 4 | - covers reading comprehension, translation, composition, and oral/aural practice using authentic materials  
- focus on Japanese culture-specific social events and news  
- learn 600 more new kanji  
- conducted principally in Japanese | - develop and consolidate communication skills with fluency at a higher level in a variety of socio-cultural contexts.  
- read Japanese authentic texts analytically and critically on different genres and write a well structured short essay in Japanese  
- write a minimum of 900 kanji and recognise 1850 kanji |
| Level 5 | - develop reading skills through newspapers, short stories and essays by contemporary writers  
- develop speaking skills through discussion  
- develop critical analytical skills in Japanese for assessing | - develop 4 skills furthermore, sufficiently functional both linguistically and culturally  
- focus on researching on a variety of topics relating to Japanese community and cultural aspects and also presenting the projects in Japanese  
- learn both research and writing methods for the presentations |

| A3 | U1 |
| Level 1 | - develop basic 4 skills in the context of basic everyday situations  
- understand socio-cultural aspects of the language  
- read and write short passages in Japanese  
- read and write hiragana, katakana and 175 kanji | - develop basic 4 skills in the context of basic everyday situations  
- understand socio-cultural aspects of the language  
- read and write short passages in Japanese  
- read and write hiragana, katakana and 184 kanji |
| Level 2 | - develop 4 skills further in a variety of everyday situations  
- understand further socio-cultural aspects of the language  
- read and write passages relating to various oral-aural activities  
- learn 400 kanji | - develop 4 skills further in a variety of everyday situations  
- understand socio-cultural aspects integrated with the language  
- learn the difficult grammatical components, e.g., honorific system  
- read summaries of Japanese folk tales  
- write short passages in Japanese  
- learn 370 kanji |
| Level 3 | - develop 4 skills further  
- develop functional fluency and self-expression in various social and cultural situations using the honorific system and male/female speech appropriately  
- read prose at an intermediate level of complexity and length, on subjects in a cross-cultural context | - develop 4 skills furthermore, sufficiently functional both linguistically and culturally  
- focus on researching on a variety of topics relating to Japanese community and cultural aspects and also presenting the projects in Japanese  
- learn both research and writing methods for the presentations |
Appendix 2: Questionaire

Student Identification Number: ____________

1. Sex (Circle one): Male, Female
2. Age (Circle one): Teens, 20s, 30s, over 40

Please answer in terms of how well the statement describes you. Remember there are no right or wrong answers to these statements. Use the scale below to answer the questions and CIRCLE on it.

<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>No Opinion</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

1. I really enjoy learning Japanese.
2. Japanese class is a challenge that I enjoy.
3. When class ends, I often wish that we could continue.
4. I enjoy using Japanese outside of class whenever I have a chance.
5. I don't like learning Japanese.
6. I find Japanese class boring.
7. When I am in class, I often think that I would rather be doing something else.
8. Being able to speak Japanese will add to my social status.
9. I want to learn Japanese because it is important to show my ability to others.
10. Increasing my Japanese proficiency will have financial benefits for me.
11. I am learning Japanese in order to understand films, videos, or music.
12. Studying Japanese is important because it will allow me to interact with Japanese.
13. I am learning Japanese to be able to communicate with relatives who speak it.
14. I am learning Japanese to be able to communicate with friends who speak it.
15. I want to be more a part of the cultural group that speaks Japanese.
16. I would like to learn several foreign languages.
17. I enjoy meeting and interacting with people from many cultures.
18. Studying foreign languages is an important part of education.
19. Japanese is important to me because it will broaden my world view.
20. I like the subject matter of this course.
21. It is important to me to learn the course material in this class.
22. What I learn in this course will help me in other courses.
23. I'm certain I can master the skills being taught in this class.
24 I believe I will receive an excellent grade in this class. 5 4 3 2 1
25 I am worried about my ability to do well in this class. 5 4 3 2 1
26 I feel uncomfortable when I have to speak in this class. 5 4 3 2 1
27 When I take a quiz I think about how poorly I am doing. 5 4 3 2 1
28 I often have difficulty concentrating in this class. 5 4 3 2 1
29 I have an uneasy, upset feeling when I take an exam. 5 4 3 2 1
30 I don't worry about making mistakes when speaking in front of this class. 5 4 3 2 1
31 I am afraid that my teacher is ready to correct every mistake I make. 5 4 3 2 1
32 I feel more tense and nervous in Japanese class than in my other subject. 5 4 3 2 1
33 I can imitate the sounds of Japanese very well. 5 4 3 2 1
34 I can guess the meanings of new vocabulary words very well. 5 4 3 2 1
35 I am good at Japanese grammar. 5 4 3 2 1
36 In general, I am an exceptionally good language learner. 5 4 3 2 1
37 I learn best when I am competing with other students. 5 4 3 2 1
38 I want to do better than the other students in this class. 5 4 3 2 1
39 I learn best in a cooperative environment. 5 4 3 2 1
40 My relationship with the other students in this class is important to me. 5 4 3 2 1
41 I often feel lazy or bored when I study for this class. 5 4 3 2 1
42 I work hard in this class even when I don't like what we are doing. 5 4 3 2 1
43 When course work is difficult, I either give up or only study the easy parts. 5 4 3 2 1
44 Even when course materials are dull and uninteresting, I always finish my work. 5 4 3 2 1
45 I can truly put my best effort into learning Japanese. 5 4 3 2 1
46 I prefer activities and material that really challenge me to learn more. 5 4 3 2 1
47 I prefer to sit and listen, and don't like being forced to speak in Japanese class. 5 4 3 2 1
48 I like language learning activities in which students work together in pairs or small groups. 5 4 3 2 1
49 During this class, I would like to have no English spoken. 5 4 3 2 1

References

A Comparative Study: Motivation of Learners of Japanese


