

**A PILOT STUDY OF JAPANESE LANGUAGE STUDENTS
AT THREE STATE UNIVERSITIES IN THE
UNITED STATES: IMPLICATIONS FOR
JAPANESE LANGUAGE TEACHING POLICY**

Hiroko C. Kataoka

Abstract

One hundred and eighty-five Japanese-language students at three universities in the United States were surveyed about their major field of study, why they chose Japanese, and their career expectations. Information was also collected about whether they were taking Japanese as a required or as an elective subject, and the attrition rate of the course. Special attention was paid to students of engineering and science and technology. The purpose was to discover if the provision of Japanese language education was targeted at "critical" fields of business, finance, and science and technology. The results, amongst other things, indicate that students in the critical fields have work-load problems; that increasing language requirements may drive students away from Japanese to easier languages; that many students have only vague ideas about why they study Japanese; and that only 30% had concrete plans to visit Japan.

Interest in learning the Japanese language has grown in the United States in recent years, as reflected in the steady increase in Japanese language-learning activity. Nationwide enrollments have expanded 40% between 1980 and 1983

Hiroko Kataoka is professor of Japanese at North Carolina State University. She is the director of the Televised Japanese Language Program, which she initiated in 1984 and which is supported by grants from the Japan-U.S. Friendship Commission and the Matsushita Foundation. She also is the organizer of the Southeastern ATJ and has articles appearing in *Foreign Language Annals* and *Nihongo Kyoiku*.

(Brod, 1985). This trend represents a qualitative shift in the nature of Japanese language study as well as a quantitative change. Traditionally, Japanese language offerings were limited to institutions that had Asian Studies programs; students who enrolled in Japanese language courses were limited to Asian Studies majors and social sciences and humanities majors with specializations in Japan or East Asia. Japanese language programs today, however, host students in other fields as well. (See Kataoka, 1982, for one example.)

The trend probably reflects Japan's rise to international prominence in business, finance, science and technology, making it the non-communist world's second strongest economy. Japan's success in competing with the United States has prompted the concern in the U.S. that too few professionals in critical fields possess Japanese language proficiency. In addition to articles citing the importance of providing American business people with proficiency in Japanese (e.g. Kawade, 1981; Honig & Brod, n.d., "Brokers Intensify," 1982), a number of specially convened conferences have taken up the issue of the need for Japanese language expertise in the sciences and engineering, including the early 1984 House Subcommittee on Science, Research and Technology hearings on the Availability of Japanese Scientific and Technical Information (see also Gillmor & Samuels, 1983; Morse & Samuels, 1985).

Despite these changes, those studying the Japanese language still occupy a remarkably low percentage of all foreign language enrollees — some 2% in 1983 (based on figures in Brod, 1985). There are problems in the system that must be identified if the number of effective Japanese language users in the United States is to attain a level commensurate with the importance of the U.S.-Japan relationship.

With these large-scale trends and problems in mind, I decided to investigate the following corollary issues for the language teaching profession:

1. Do the students in Japanese language courses currently represent

Japanese Language Students

the various fields in which Japanese is considered important?

2. Do individual students' motivations reflect the current Japan-related concerns in the United States? That is, are students who enroll in Japanese language courses aware that knowledge of Japanese may enhance their career opportunities? If there are considerations other than career, what are they?
3. Although a need has been voiced for more specialists in various fields who have knowledge of Japanese, no clear plan for increased recruitment of students has emerged other than increased language requirements (i.e., mandatory language study). Does that policy offer an effective way of recruiting students into Japanese courses?
4. If those involved in such fields as business, technology, and the sciences really want to be able to use Japanese for their work purposes, their proficiency level has to be high. However, the attrition rate in Japanese classes is between 80 and 90% in the first two years of instruction (Lambert, 1983; Massey, 1977), which limits the number of students who attain proficiency in Japanese. What, then, are the reasons for attrition? Conversely, why do students continue language study? Gaining proficiency requires a number of years. At what stages in their college careers do students start studying Japanese?
5. Science and engineering are areas of growing concern, given not only Japan's advances in biotechnology and electronics, but recent high-technology trade tensions as well. Engineering and science majors have started studying Japanese, but their numbers nationwide appear to be quite small (Coleman & Samuels, 1985). What are the special characteristics of these students? Does this group differ from those in other fields in terms of their motivation for studying Japanese, their performance, and their proficiency expectations? Are they more likely or less likely to continue language study than students in other specialties?

In order to explore these issues, I conducted a survey among students at three universities: the University of Michigan (MI), the University of Florida (FL), and North Carolina State University (NCS). I chose these universities because all three are large state institutions, and yet they have completely different backgrounds in terms of Asian Studies programs: MI has an excellent East Asian Studies Department that is

large and well established; FL has a rather new and small Asian Studies program which is not as well known as the program at MI; and NCS has neither an Asian Studies program nor established Japan-related courses, but it does have a new Japanese language program with offerings up to fifth year Japanese, making it the largest in the southeast.

I prepared and sent copies of a self-administered questionnaire to MI, FL and NCS. The questionnaire was administered at the three institutions during the last week of instruction in the fall semester of 1983, among students who attended class the day the questionnaire was distributed. The rate of return was 74% for MI and 100% for FL and NCS. The total sample size, was 185, of which MI represented 98, FL 33, and NCS 54.

The sample includes students from first to fourth year Japanese levels at NCS, first to third year at MI (with one fourth year independent study student), and first and second year students at FL. (FL has only first and second year Japanese language courses.)

1. Students' Backgrounds: Who Studies Japanese?

The most striking feature of this sample is the diversity of specialties that appeared: the 162 students with declared majors represented 67 fields, from accounting to zoology. Asian Studies, which used to be the main field among those who studied Japanese, accounted for only 16% of the sample. Students in humanities and social sciences (including Asian Studies) accounted for 43% of the sample; thus more than half of the students studying Japanese had majors other than the "traditional" fields for Japanese language study. Within the "non-traditional" group, engineering and sciences supplied the largest number of students: 25% of the entire sample came from these fields. Students from business and economics accounted for 13% of the sample — a rather small number, considering that *business Japanese* is almost a key word in today's Japanese language education.

Japanese Language Students

This overall ratio of students in each field, however, was not uniform among the three institutions. As Table 1 shows, the number of students in humanities and social sciences combined (including Asian Studies majors) was about one half of the students at MI and FL, while it was only about one fifth at NCS. Over 60% of the NCS students represented engineering and sciences, compared to only 7% and 19% of MI and FL, respectively. In addition, MI had quite a few students (16%) who had not declared their majors yet. These differences among the three institutions were statistically significant.

Table 1
Majors of Students Studying Japanese

	MI		FL		NCS		Total	
	N	%	N	%	N	%	N	%
Asian Studies, Humanities, & Social Sciences	51	53	16	50	10	19	77	43
(Asian Studies	23	24	5	16	0	0	28	16)
(Humanities & Social Sciences	28	29	11	34	10	19	49	27)
Economics & Business	12	13	6	19	5	10	23	13
Engineering & Sciences	7	7	6	19	31	61	44	25
Other	26	27	4	12	5	10	35	20
(Other & Double Majors	11	11	2	6	5	10	18	10)
(Undecided	15	16	2	6	0	0	17	10)
Total*	96	100	32	100	51	100	179	101

chi square = 60.64, $p < 0.001$

(*Total percentage may exceed 100 due to rounding.)

The large ratio of engineering and science majors studying Japanese at NCS reflects overall enrollments in those majors; approximately 70% of all students enrolled at NCS during the

Japanese Language Students

fall semester of 1983 were in engineering and sciences, compared to 30% at FL and 25% at MI (figures which include medical students at both institutions). Although Japanese language courses draw students proportionately to the enrollment pattern of the entire university at NCS, humanities and social sciences majors at FL and MI were over-represented in their Japanese language courses. This is probably due to Asian Studies majors and minors that increase the percentage of humanities and social science majors among Japanese language students.

2. Motivations to Study Japanese

2.1 Analysis of Career-related Motives

Students were asked to select one item out of 14 as their most likely reason for having started studying the Japanese language. Appendix A presents the list of 14 alternatives. At all three institutions, the item that received the largest vote was "to enhance career opportunities," 23% of the entire sample.¹

Table 2

Responses to Question, "Is Japanese language study related to your career goal at all?"

	MI		FL		NCS		Total	
	N	%	N	%	N	%	N	%
Yes	58	59	18	55	22	43	98	54
Maybe	31	32	9	27	17	33	57	31
No	9	9	6	18	12	24	27	15
Total	98	100	33	100	51	100	182	100

chi square = 6.81, not significant at $p \leq 0.05$

Elsewhere in the questionnaire, students were asked specifically if they thought Japanese language study was related

Japanese Language Students

to their career goals. Table 2 shows that more than one half of the students thought that their Japanese language study was definitely related to their career goals; those who thought it "may be" related to their career goals accounted for almost another one third of the sample. When the two responses were combined, 85% of the entire sample (145 students) felt that Japanese was related to their career goals at least to a certain extent.

Table 3

*Students' Perceptions of the Ways in Which
Japanese Language Study Relates to Their Career Goals
(Absolute Numbers)*

	MI	FL	NCS	Total
I need Japanese as a research tool.	17	1	1	19
I want to be employed by a Japanese employer.	0	2	1	3
I want to work in Japan. (It does not matter whether my employer is Japanese or not.)	19	2	12	33
Whoever my employer may be, I want a job that requires the Japanese language as an important skill.	10	3	2	15
Japanese skill may become handy as an addition to the training in my own field.	35	16	21	72
Other	3	0	0	3
Total	84	24	37	145

* Restricted to those who answered "yes" or "maybe" to the question of whether Japanese language study is related to career goals.

(Chi square test rejected due to expected frequencies <5 in 9 of 18 cells.)

These students do not see the Japanese language as their primary skill in the job market, however. Table 3 summarizes the students' responses when they were asked to indicate how the Japanese language was related to their career goals. About

one half (72 out of 145 students) checked "Japanese knowledge may become handy as an addition to the training in my own field." Almost another one fourth of the 145 students indicated that they wanted to work in Japan.

Table 3 also displays some differences among the three institutions in students' answers regarding specific perceived connections between Japanese and career goals. About one fifth of the 84 MI students who thought Japanese was related to their career goals said they needed Japanese as a research tool, compared to only one student each at NCS and FL — an understandable contrast, since 24% of the entire MI sample were Asian Studies majors.

Although two thirds of the 24 FL students chose "Japanese skill may become handy as an addition to the training in my own field," only two of the FL students indicated that they wanted to work in Japan, compared to about a third of the 37 NCS students and almost a fourth of the 84 MI students in the table. The large proportion of NCS students wanting to work in Japan may be due to the fact that there are numerous Japanese high-technology manufacturing operations in the Research Triangle (an area bordered by the university), as well as the N.C. Japan Center's new honors internship program, which sends selected students of the Japanese language to work in companies in their own specialties in Japan.

2.2 Other Motives for Studying Japanese

The item that claimed the second most frequent response overall among the 14 reasons given for beginning Japanese study was "interested in Japanese culture." In this instance NCS differed from MI and FL. Although one fifth each of the MI and FL students chose "interested in Japanese culture," one fourth of the NCS students chose "linguistic curiosity."² "Interested in Japanese culture" was third-ranked in frequency among the NCS students. About one

tenth of the NCS students also chose the item "wanted to do something different": when the "curiosity" and "something different" responses were combined, they accounted for 30% of the NCS students — a proportion exceeding those choosing the career-related answer. Only 10% of MI and FL students chose either of these items.

The responses of almost a third of the NCS students, that they started Japanese language study because of curiosity and because they wanted to do something different, contrast with the reasons that one normally anticipates for starting Japanese language study; one expects something more specific (such as academic or career goals), or a strong liking and interest in the culture. The "curiosity/different" response may be especially true in new programs and programs without supporting Asian Studies offerings — hence the difference between NCS and other institutions. The NCS response lends some support to the observation that more and more students are taking Japanese for vaguely articulated reasons (Kataoka, 1982).

Students' intention to visit Japan, an underlying source of interest in studying Japanese, may also have been influenced by the presence and size of an Asian Studies program on their campus. Over one third of the MI students had concrete plans to go to Japan, compared to slightly over one quarter of the FL students and less than one fifth of the NCS students. (In the entire sample, about 30% of the students said that they had concrete plans to go to Japan.) Moreover, half of the NCS students were intending to go for career-related work, whereas over half of the FL students and two fifths of the MI students were going to go as students.

Despite the seeming lack of commitment in starting language study with such vague motives, these responses had no relation at all to performance. There were no statistically significant differences in grades received (or anticipated) in Japanese language courses by students when broken down by their reasons for studying Japanese.

3. Foreign Language Requirement — What Does It Mean for Japanese?

Mandatory foreign language course requirements are a major issue in foreign language education in the U.S. The President's Commission for Foreign Language and International Studies (1979) recommended greater foreign language requirements; the previously mentioned Congressional hearings on Japanese scientific and technical information also contained a recommendation to increase foreign language requirements in order to expand the number of qualified Japanese language users among scientists and engineers. The three-university study, however, found no indication that compulsory foreign language requirements had increased enrollments in Japanese language courses, nor that they had kept students enrolled. Other reasons had attracted students to Japanese language courses rather than rules passed down to the students by the administration.

Among the three institutions surveyed, only 3.5% of the students chose the item "foreign language requirement" as their most likely reason for choosing to study Japanese (out of the 14 given possible reasons). The highest percentage of students who chose that answer occurred at FL, with 9%. NCS had no one choosing this item as the foremost reason for starting Japanese language study.

In a different part of the questionnaire, students were asked about the relationship between their foreign language requirements and Japanese language study. (The question and its corollaries are reproduced in Appendix B.) It was found that 44% of all the students studying Japanese had *no* foreign language requirement in their curricula at all; phrased otherwise, nearly half of the students who were studying Japanese did so on a completely voluntary basis.

In response to the same questionnaire item, the number of students who had a foreign language requirement but who were not using their Japanese language credits to fulfill it

was an unexpectedly large 22% of the sample. This means that two thirds of the entire sample were studying Japanese regardless of their foreign language requirement. Furthermore, about 21% of the students indicated that they would have studied Japanese even if they had had no foreign language requirement, although they were using credits earned in Japanese to satisfy their foreign language requirement. This leaves only 13% of the students who were studying Japanese because of a foreign language requirement. Among them, only four students (2% of the entire sample) said that they would not have taken Japanese if there had been no foreign language requirement, and 18 students (10% of the sample) said that they might have taken Japanese without a foreign language requirement but they were not sure.

One might argue that few students were studying Japanese to fulfill their foreign language requirement because the foreign language requirement policy was not strong enough; if the rule were strengthened, more students would enroll in Japanese language courses. There are indications, however, that greater foreign language requirements would send students to *other* foreign languages, especially those perceived as easier to learn than Japanese.

I sampled NCS students from other foreign languages and compared them with those studying Japanese at NCS. The sample was taken randomly from French, Spanish, and German courses during the spring semester of 1984, one semester after the Japanese sample was collected. The sample was confined to students in 101 and 201 courses for all four languages. The subsample sizes were 47 for French, 47 for Spanish, and 27 for German. The questionnaire used for those languages was exactly the same as the one used for the Japanese study.

Table 4 summarizes the responses of the students in the four languages to the questions about language courses requirements. Mandatory minima are clearly *not* the reason for students enrolling in Japanese. In addition, most of the students

Japanese Language Students

taking French and Spanish classes held majors within the School of Humanities and Social Sciences, the only School that had a foreign language requirement at NCS. (Two departments in another School require one year of language, but that language must be German.)

The results of this modest comparison makes sense in terms of the quality of the typical student's strategy in response to a requirement. Students who do not have much interest in foreign language study but enroll merely because of a foreign language requirement will not take a Japanese language course, because they believe it to be much more difficult for them than Spanish or French (which it is). This does not mean that a foreign language requirement is useless; enforcing such a requirement, however, will not increase enrollment in Japanese language courses.

Table 4

Relationship between Language Study and Foreign Language Requirement by Language Currently Studied at NCS (Percentages)

	French N = 47	German N = 27	Japanese N = 48	Spanish N = 47
"Requirement" chosen as initial reason for studying the language (separate questionnaire item).	53%	15%	0%	40%
Using credit from this course for requirement; would/might not have taken the course if no requirement.	50%	33%	2%	55%
Using credit from this course for requirement, but would have taken this course regardless.	33%	19%	11%	19%
No requirement/not using this course for requirement.	17%	48%	87%	26%
Total	100%	100%	100%	100%

Some may think that more students from such fields as engineering and sciences would start studying Japanese if they were given a foreign language requirement, because they would see the value of Japanese even if it were a littler harder than Spanish. This, again, is unlikely because students from such fields normally have very heavy study and lab schedules that do not allow time for language study, which is also time-consuming. If such students were required to take foreign language courses, they, too, would probably enroll in language courses that they believed to be easier in order to protect their grade point average in their majors.

4. Attrition and Continuation

In order to analyze attrition through a one-time survey instrument, students were asked whether they intended to continue language study or not. Students were then asked through a closed-ended series of questions what their reasons were for continuing or discontinuing.

In the aggregate, a uniformly large percentage of students across institutions and grade levels expressed the intention to continue. Around 80% said that they intended to continue Japanese study during the subsequent semester. There were 33 students who indicated that they would quit Japanese language study the next term and provided one or more reasons for their decision. (An additional four students replied that they would discontinue but did not give reasons.) The distribution of their reasons for quitting is presented in Table 5.

The survey results do not support the widespread belief that most students discontinue Japanese because they do not perform very well and get discouraged, or are afraid that their Japanese grade will lower their overall GPA. Although those who intended to continue earned or expected slightly higher grades (3.32 where $A=4$) than those who didn't (3.01), there was no statistically significant difference in the earned

Japanese Language Students

or expected grade between those who intended to continue and those who did not. When asked to choose and rank order the given 11 possible reasons for discontinuing language study, only two out of 33 who were discontinuing checked, "I am not doing as well as I wanted to. Low grades in Japanese hurt my GPA" as the most likely reason, and no one chose "I am not doing as well as I expected to. I am not concerned about my GPA, but I am discouraged" as the most likely reason. (When the top three choices were combined, only eight students out of the 33 who intended to discontinue chose either of these items.)

Table 5

*Reasons for Discontinuing Japanese Language Study
(Most Likely Reason Only)*

	N	%
Graduation/Transfer	7	21%
I am graduating this semester.	4	
I am transferring to a different college.	3	
Course Load/Conflict	15	46%
I have so many other courses to take that I won't have time to study Japanese.	14	
I have a time conflict--I have to be taking my major course during the time Japanese class meets.	1	
Poor Performance	2	6%
I am not doing as well as I wanted to. Low grade in Japanese will hurt my GPA.	2	
Achieved original goal.	2	6%
Fulfilled foreign language requirement.	1	3%
Other	6	18%
Total	33	100%

These results do not automatically mean that poor performance is unrelated to attrition, because this sample did not include students who dropped out before the time of the survey. The early weeks of the term witness considerable attrition; at NCS eight students out of 46 dropped the course during the first two weeks of the fall semester in 1983. Those students — who were not sampled — may have enrolled with an overly casual assessment of the difficulty of learning the language and then quickly discontinued because of poor performance.

Students *are* more likely to discontinue language study because of competing demands from their major fields, which are too demanding to allow the time and energy required for good grades in Japanese. Those students may be performing well, but feel that Japanese study takes up so much time that continuing it interferes with their major courses. The item that the largest number of discontinuing students (14 out of 33) checked was, "I would like to continue but I have so many other courses to take that I won't have time to study Japanese." If we combine the first three reasons given for discontinuing, 22 students (two thirds) gave this reason. Two other related answers ("I have a time conflict — I have to be taking my major course during the time Japanese class meets" and "I have used up all my free elective credits") were chosen as one of the first three reasons by about a fourth of those who intended to discontinue.

The demands of major course work probably account for the high drop-out rate among engineering and science students (about 30%, in contrast with the overall percentage of 20), despite the fact that they constitute the best performers in Japanese.

A lesser but nonetheless important reason for discontinuing was either graduation from college or transfer to a different institution. In the data collected, seven students checked one of these items as the most likely reason for discontinuing.

This source of attrition cannot be avoided as long as a large percentage of students start studying Japanese in their junior or senior year. In the survey sample, one third of the first year classes were juniors and seniors. These students must have begun studying Japanese either knowing that they would not attain fluency, or thinking that they could attain fluency in one or two years.

The 148 students who indicated that they intended to continue Japanese study during the subsequent semester were asked to choose and rank order their reasons for continuing Japanese. Of these, 131 provided usable responses.

I grouped the responses into categories that represent ten types of motives for continuing study: enjoyment; career benefit; interest in culture; circumstantial reasons (Japanese relatives, lived in Japan, etc.); academic major; foreign language requirement; challenge; habit; past performance (good grades); and other. The first three categories accounted for about two thirds of the first-ranked reasons given (83 cases). The most frequently given response fell under the category of enjoyment; 36 students (over a fourth of all responses) indicated that they were continuing language study because the course was interesting or because they enjoyed the class.

The second and third most represented categories, respectively, related to career concerns and interest in Japanese culture. Almost a fourth of the continuing students (29 respondents) indicated career reasons for continuing, and another 18 cited an interest in Japanese culture. These categories include a substantial number of students who arrived at these motives for continuing *after* they had begun Japanese study. Of the 29 who were continuing Japanese for career-related reasons, 13 (almost half) had gained that awareness since enrolling; of the 18 who were continuing for reasons of interest in culture, six (a third) experienced an increased interest in Japanese culture that was strong enough to become their primary motive for continuing language study.

Japanese Language Students

The importance of career considerations for continuing Japanese is underscored by the relationship between intention to continue and the perception of a career connection with the Japanese language study. A significantly greater proportion of those students citing a relation between their career goals and Japanese study were going to continue language study, when compared with students claiming no relationship between language study and career plans: as Table 6 indicates, students with no career connection in mind had twice the proportion of drop-outs.

Table 6

Relationship between Japanese Language Students' Perceptions of Career Value in Japanese and Intentions Regarding Language Study Continuation

(N = 181)	Intention		
	Continue	Discontinue	Total
Language study relation to career plans seen (yes/maybe)	88%	12%	100%
No relation seen (no)	74%	26%	100%

It has been shown that achievement is a big source of motivation for higher achievement (e.g. Skinner, 1956; Savignon, 1976), and Japanese language study is probably no exception. Those students who said that they would continue earned (or expected to earn) an average grade of 3.32, a truly high average. However, our students do not necessarily continue *because* they are making good grades. As I noted earlier, the mean grade of the continuing and discontinuing student groups were statistically indistinguishable. Moreover, only two students indicated that getting a good grade was the most likely reason for their continuing. Obviously some other reasons mentioned earlier – such as having an interesting, enjoy-

able class, or the more practical reason of preparing oneself for a better career — were more important to our students.

5. Engineering and Science Majors' Special Characteristics

Since Japan-related programs in science and technology are particularly important at NCS, I conducted some comparisons between students in sciences and engineering and the other students in the sample. (There were 44 students in science and engineering fields and 135 in others, for a total of 179 students with known majors.) Engineering and science majors were less likely than students in other fields to see career-related benefits in their language study — a rather surprising finding, given the recent publicity for Japan's technical achievements. To the question "Is Japanese language study related to your career goal at all?" nearly 30% of the engineering and science majors answered "no," compared to 10% of those in all other fields. Sixty-two percent of the other students answered "yes" to this question, while only 35% of the engineering and science majors did. (See Table 7.) These differences were statistically significant.

Table 7

Comparison of Engineering and Science Majors' Responses with All Others to the Question, "Is Japanese language study related to your career goal at all?"

	Engineering & Science		All Others		Total	
	N	%	N	%	N	%
Yes	15	35	82	62	97	56
Maybe	16	37	38	29	54	31
No	12	28	13	10	25	14
Total*	43	100	133	101	176	101

chi square = 12.54, $p < 0.01$

(*Percentages may exceed 100 due to rounding.)

Similarly, the ratio of engineering and science students who chose to "enhance career opportunities" as their most likely reason for starting Japanese language study was actually smaller than the percentage for those in other fields (21% vs. 26%), although the difference between the two groups was not statistically significant.

The initial reasons of engineering and science students for studying Japanese were as diverse as those for students in other fields: the only dissimilarity of note was that engineering and science majors were more likely to indicate vague reasons such as curiosity and wanting to do something different (21% vs. 15% of other students). I interviewed a few NCS students in engineering and science majors to further explore their motivation for enrolling in Japanese language courses and found that many of those students study Japanese for a change of pace or for "relaxation" – an attraction of language study unheard of before science and technology students started enrolling in Japanese courses! Such vague motivation among science and engineering students appears not only in their reasons for studying Japanese; they also had lower motivational intensity as measured by a motivational intensity scale patterned after Lambert and Gardner (1976). Three items out of five in the scale showed significantly lower scores for these students, as Table 8 shows.

In addition, science and engineering students' achievement expectations in all four skills (speaking, listening, reading and writing) were lower than those of other students, both for their recall of their grades when they started language study and for the point in their course work when the survey was conducted. These differences were statistically significant at $p \leq 0.05$.

Similarly, fewer of these students had concrete plans to go to Japan (see Table 9) and, although the difference was not statistically significant, their rate of intention to discontinue was higher than other students'.

Japanese Language Students

Despite all these seemingly negative conditions, however, the grades in Japanese that engineering and science majors had earned (or, among first-year level students, expected to earn) were the highest for any category of major (although the differences were not statistically significant). This fact supports the previous assertion that types of motivation or reasons for studying Japanese are not related to performance.

Table 8

Differences between Engineering and Science Majors and Other Students in Motivational Intensity Scale Items (Agreement = 3; Range of +3 to -3)

	Engineering & Science	All Others	Interprettation: Strong Motivation =
If Japanese were not taught in my college, I would not bother learning it.*	+ 0.61	-0.98	→ -3.0
Compared to other students in my Japanese class, I think I do less studying than most of them.	+ 0.05	+ 0.24	→ -3.0
I work harder on Japanese than on any other course in college.*	-0.81	+ 0.22	→ + 3.0
I actually think about what I have learned in my Japanese class very frequently.	+ 1.91	+ 1.76	→ + 3.0
After I finish college, I will probably continue to improve my Japanese.*	+ 1.51	+ 2.23	→ + 3.0

* Statistically significant difference at $p \leq 0.05$.

Japanese Language Students

Table 9

*Comparison of Plans for Japan Travel between
Science and Engineering Majors and All Other Students*

	Engineering & Science		All Others		Total	
	N	%	N	%	N	%
"Do you plan to go to Japan?" Yes (concrete plan)	6	14	48	36	54	31
Yes (no concrete plan)	33	77	82	62	115	66
No	4	9	2	2	6	3
Total	43	100	132	100	175	100

chi square = 12.07, $p < 0.01$

These students in science and engineering majors were more apt than others to study the language out of their own initiative: 89% of the engineering and science majors were studying Japanese either without any foreign language requirement or without using the credits they had earned in Japanese to fulfill their requirement, compared to 57% of the other students. (This difference was statistically significant at $p \leq .001$.)

The 27 science and engineering students who intended to continue Japanese language study during the subsequent semester were more likely than other students to cite their enjoyment of the class as a reason for continuing. Over a third of these science and engineering students gave as their first reason for continuing the language a response falling in the enjoyment category, in contrast to less than a fourth of all the other students. The continuing science and engineering students were also much more likely to gain a sense of benefit to career goals from Japanese study *after* they had begun the course; about one out of five (5/27) chose "I wasn't aware how important/useful Japanese might be for my career goals when I started, but now I am" as their strongest reason for

continuing, in contrast to only one out of 13 (8/102) among all other majors.

Discussion:
Implications for the Language Teaching Profession

The United States has much at stake in its relationship with Japan, but the number of Americans with Japanese language proficiency has yet to reach a size commensurate with such importance — particularly in the most dynamic areas of contact between the two countries: science, technology, and commerce. American colleges and universities should respond by recruiting more students into their Japanese language programs, but this study suggests that such recruitment efforts should be made more in the areas where people with ability in Japanese are needed. As seen earlier, it is possible for a Japanese language program to draw students in majors roughly in proportion to overall enrollment figures, although enrollment figures do not necessarily correlate with fields where Japanese expertise is needed: today such people are sought particularly in business and technical fields, but the ratio of students in Japanese from these fields is still relatively low. These recruitment activities should include information on career-related benefits. Since many of the students who started studying Japanese did so thinking it would enhance their career opportunities, enrollment might increase accordingly if more students were made aware of the fact that Japanese is important — especially in business and technical fields. This study casts doubt, however, on the proposal that we augment Japanese enrollments through expanded foreign language requirements.

Other implications of this study extend to our approach to the classroom and to the content of our classes. We may have to re-examine our own expectations of what our students ought to “look like”; we can no longer assume that most of our students — and our most promising students at that — will

be Asian Studies majors and related academic neophytes. Some of our best students will have vague reasons for studying Japanese. A sizable number will enroll without a firm hope of even setting foot in Japan. Japanese is no longer the specialized commitment that it once was. Students now represent a broad variety of fields, and they begin studying Japanese at any point of their college career as if Japanese were no different from any other course offerings. Nor is an Asian Studies program necessary in order to have a respectably sized language program, since the program can draw students from a wide variety of departments.

This, in turn, means we should seriously consider modifying the character of our Japanese language courses, particularly in the lower levels, to accommodate students from various backgrounds. We teachers ought to be aware that the most important driving force for a large number of students is their enjoyment of the class itself — something we all know, but which somehow is easy to forget. Teaching our classes in the best way we can and making them more enjoyable may be the best way to maintain a high continuation rate.

Another implication of the study's results is that we should not demand unreasonably heavy work from our students, especially when many of them represent fields which are already demanding. This does not mean we should grade students too uncritically or let them get away with slipshod performance; it simply means that we should not be unreasonable in terms of speed or expect students to do all the work at home when we could be utilizing class hours more effectively. Since science and engineering students' curricula do not allow intensive language study, offering them non-intensive courses or special intensive summer programs combined with maintenance courses during the school year would facilitate their participation in learning Japanese. The better students in critical fields such as commerce and technology should also receive scholarship and fellowship aid as well as participate

in special exchange programs to encourage their continued Japanese language learning. Although the creation of such new programs may appear to take place at a policy-making level beyond most of us, we have a valuable role to play in advocating, designing, and executing such programs.

Even with such important supporting programs in place, we should be prepared to face attrition not only among poor students but also among good students. When students having very demanding majors like engineering or the sciences enter our classes, many of them will find Japanese extremely time-consuming and will not want to continue regardless of how well they are doing in class or how hard we try to make class enjoyable and interesting.

There is also a need for some teaching materials for those students who may not go to Japan but who want or need to use Japanese in the U.S. Although most of the students did indicate in the questionnaire that they planned to go to Japan at some time, only 30% of them had concrete plans. This means that quite a few students will never go to Japan but may have a chance to use Japanese in the U.S. Some such situations should be introduced (for example, picking up Japanese visitors at the airport or inviting Japanese people to dinner) so that all the students may be encouraged to feel closer to the language. Such materials can still incorporate a lot of Japanese culture. At this point, some supplementary materials made by individual teachers may suffice.

In addition to exposing our Japanese language students to illustrations of how Japanese can be a strong added skill for future career goals, we should also introduce Japanese culture to the students as much as we can in the context of the language class. Some 15% of the students in this study decided to continue Japanese language study because they became more aware of its importance for career or because they became more interested in Japanese culture *after* they began studying the language. The importance of career-related

Japanese Language Students

motives for studying Japanese is also illustrated by the greater tendency to continue Japanese language study among students who see a career connection with the language.

The survey results presented here are exploratory, so the implications and suggestions based on their analysis can be no more conclusive. I do believe, however, that they offer some insight into the challenges that face teachers of the Japanese language and the hope of a dynamic and progressive response to the changing nature of language students' needs.

This article was first published in the Journal of the Association of Teachers of Japanese, vol. 20, no. 2, November 1986. We are grateful to the author and the editors for granting us permission to reprint.

Appendix A

Responses for Question Concerning Initial Reason for Enrolling in Japanese

- related to my major
- enhance career opportunities
- have relatives and/or friends who speak Japanese
- foreign language requirement
- interested because I had lived in Japan
- my own cultural background, heritage
- retaining Japanese knowledge already gained
- preparation for trip to Japan
- linguistic curiosity
- challenge
- wanted to do something “different”
- other students told me they liked their Japanese class
- interested in Japanese culture
- other

Japanese Language Students

Appendix B

Questionnaire Item Concerning Individual Student's Foreign Language Requirements

Is there a foreign language requirement in your individual academic program?

- ☐ no
- ☐ not applicable → Please go to question 9.
- ☐ yes

How many credits and courses are required?

_____ credits; _____ courses

Do you intend to use or have you used the credits earned in your Japanese language course(s) to satisfy your foreign language requirement?

- ☐ no → Please go to question 9.
- ☐ yes

If there had been no foreign language requirement in your program, do you think:

- ☐ you would definitely not have taken Japanese language initially.
- ☐ you might have taken Japanese, but you are not sure.
- ☐ you would have taken Japanese regardless of the requirement (your studying Japanese has nothing to do with foreign language requirement).

Notes

1. This figure is almost twice the 12% of students in Kataoka's 1979 study of 402 students at 27 institutions throughout the U.S. who wrote in an open-ended question that they had started studying Japanese for career purposes.
2. The large proportion of students selecting "linguistic curiosity" probably reflects a flaw in the survey instrument rather than students' linguistic intellectual bent: the question did not offer a simple "curiosity" response alternative, so students chose "linguistic curiosity" as the closest approximation, as later discussion with some of them revealed.

References

- Brod, R. (1985). MLA fall 1983 language enrollment survey. *ADFL Bulletin*, Jan., 58-63.
- Brokers intensify stock studies in Tokyo as more foreign investors look to Japan. (1982, May 7). *Wall Street Journal*, p. 30.
- Coleman, S. K. & Samuels, R. J. (1985). Applied Japanese studies for science and engineering at American universities. In R. A. Morse & R. J. Samuels (Eds.), *Getting America ready for Japanese science and technology* (pp. 26-34). Washington, DC: Asia Program, Woodrow Wilson International Center for Scholars.
- Gardner, R. G. & Lambert, W. E. (1972). *Attitude and motivations in second language learning*. Rowley, MA: Newbury House.
- Gillmor, R. & Samuels, R. J. (Eds.) (1983). *Japanese scientific and technical information in the United States*. (MIT Workshop Proceedings). Springfield, VA: NTIS, U.S. Department of Commerce.
- Honig, L. J. & Brod, R. I. (n.d.). *Foreign languages and careers*. New York: Modern Language Association.
- Kataoka, H. (1979). *Motivations and attitudes of Japanese-American students towards learning the Japanese language*. Unpublished doctoral dissertation, University of Illinois.
- Kataoka, H. (1982). A needs assessment approach to teaching Japanese. *Journal of the Association of Teachers of Japanese*, 17(2).
- Kawade, R. (1981). What westerners should know about doing business in Japan: Consul General Kawade speaks at the University of South Carolina, *Japan and the Southeast*, October, 3-6 (Published by the Consulate General of Japan, Atlanta, GA).
- Lambert, R. A. (1983). *Beyond Growth*. Washington, DC: Association of American Universities.

Japanese Language Students

- Massey, E. T. & Massey, J. (1977). *CULCON report on Japanese studies at colleges and universities in the United States in the mid-70's*. Subcommittee on Japanese Studies, U.S. Japanese Conference on Cultural and Educational Interchange.
- Morse, R. A. & Samuels, R. J. (Eds.). (1985). *Getting America ready for Japanese science and technology*. Washington, DC: Asia Program, Woodrow Wilson International Center for Scholars.
- President's Commission on Foreign Language and International Studies. (1979). *Strength through wisdom: A critique of U.S. capability*.
- Savignon, S. (1972). *Communicative competence: An experiment in foreign language teaching*. Philadelphia: The Center for Curriculum Development.
- Skinner, B. F. (1954). The science of learning and the art of teaching. *Harvard Educational Review*, 24, 86-97.
- United States Congress. (1984). *The availability of Japanese scientific and technical information in the United States*. House Subcommittee on Science and Technology, Committee on Science and Technology, March 6-7.