

Learning Both Ways - Coming to America, Going to Japan

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Abstract

Each year for five years a group of Japanese students, along with one professor, from the Kanazawa Institute of Technology have been coming to Rose-Hulman Institute of Technology for intensive training in English. At Rose-Hulman, located in Terre Haute, Indiana, the emphasis is placed on teaching English, American culture, and engineering design. While exchange programs of this type are not unique, we have found that the inclusion of Rose-Hulman students to be the most enjoyable part of the program for the visitors.

Introduction

The visiting students, usually about twelve, have a very busy schedule during their four-week stay in Terre Haute. In addition to their classroom activities, they shop at local shopping centers, eat at local restaurants, visit nearby cities such as Indianapolis and St. Louis, and take trips to local industries. The students and their visiting professor are accompanied on these trips by their Rose-Hulman host, classroom instructors, and Rose-Hulman students.

The inclusion of the Rose-Hulman students as counselors is the part of the program the visitors seem to enjoy the most. The counselors, usually one counselor for each 3-4 visitors, are constant companions for the length of the program. The Japanese students are surrounded by English speakers around the clock.

While at Rose-Hulman the students attend lectures on English, American Culture, and Engineering Design. Each group of 3-4 students is asked to design, build, test, and give an oral report in English on a project they select. We have found that such programs are beneficial for the visiting students as well as the counselors. Because of their positive experiences during the summer, some Japanese students have returned to the U.S. for further study. Also, some of the counselors have gone to Japan to study.

Background

Kanazawa Institute of Technology (KIT), a privately owned engineering college located in Kanazawa, Japan, was founded in 1957. It is co-ed and has approximately 7500 undergraduates and 500 graduate students.[1] Kanazawa is in Ishikawa Prefecture on the Japan Sea side of Japan, and 460 kilometers (285 miles) northwest of Tokyo. It is approximately 280 kilometers (174 miles) from Osaka and 250 kilometers (155 miles) from Nagoya.[2] The population of Kanazawa is 457,797 as of December 1, 2002.[3] Kanazawa is well known for its historical past and cultural heritage, such as tea ceremony (Sadoo), gold foil craft (Kinpaku), and kimono dyeing (Kaga Yuzen).

KIT offers a doctoral program and was one of the first colleges in Japan to introduce Engineering Design into their curriculum. Sophomore students are introduced to working in teams and studying engineering design problems. This helped to prepare them for the program at Rose-Hulman.

Rose-Hulman Institute of Technology (RHIT) is a private engineering college located in Terre Haute, Indiana. It is co-ed and has approximately 1800 students. Terre Haute is 70 miles west of Indianapolis and approximately 180 miles south of Chicago, and has a population of 70,000.

The two schools have enjoyed very good relations with several faculty and student exchange programs over the past 10 years. Presently two RHIT professors are at KIT, and one KIT professor is at RHIT. One of the authors has spent two and one half years at KIT and helped start their Engineering Design program. KIT started an intensive Japanese program for RHIT students in 1994.

Preparing for the program

At KIT, students are required to take at least four classes of English, starting from placement English in Spring term at freshman year and moving to English I, II, III, IV, and V. The Intensive English Program is offered during summer break in the United States and spring break in New Zealand, and any student can participate at any time during their study at KIT.

Table 1 English curricula at KIT

First year

term	Spring Term*		Summer break		Fall term		Winter term English II		Spring Break
class	Placement English		Intensive English (USA)		English I		English II		Intensive English (NZ)**
					English II		English III		
					English III		English IV		

Second year

term	Spring Term*		Summer break		Fall term		Winter term		Spring break
class	English III		Intensive English (USA)		English IV		English V		Intensive English (NZ)**
	English IV				English V		Elective Language course		
	English V				Elective Language course				

*Academic year starts in Spring in Japan.

**The program in New Zealand includes home-stay and excludes Engineering projects.

The Intensive English Program between KIT and RHIT started in 1997. Since then, a total of fifty-five Japanese students have spent four weeks in the US studying English and American culture, working on engineering projects, visiting American industries and cities,

*“Proceedings of the 2003 American Society for Engineering Education Annual Conference & Exposition
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shopping, going to parties, and talking with American faculty and students. Many intensive study-abroad programs take careful preparations as Gilmour stated[4]. The procedure of the KIT-RHIT Intensive English Program is:

1. The first step is the announcement of the program to all KIT students during the spring quarter. Interested students are encouraged to attend a series of explanatory meetings where they are given detailed information on the program, transportation, visas, expense, etc. The program is open to all students regardless of academic rank, major, or English skill level. A KIT faculty member is selected to accompany the students and help them throughout the program as needed. The completed list of participants is sent to the program director at RHIT.
2. The program director at RHIT arranges housing (dormitory rooms on campus), local transportation, company visits, meals, beginning and ending ceremonies, and recruits faculty for English, American Culture, and Engineering Design.
3. The program consists of classes in the three subjects already mentioned, a lab where the students work on their projects, and various cultural activities. It usually proceeds as follows:

Beginning of July:	Program starts
First week:	Introduce students to faculty, staff, and school facilities English and culture classes start in mornings Engineering design class, with lab, start in afternoon Visit Rose-Hulman Ventures, an incubator company for new businesses
Weekend:	Excursion. First weekend usually remain in Terre Haute for shopping and trip to parks, or visit a county fair.
Second week:	English and culture classes continue in mornings Students work on their design projects in afternoon Visit Digital Audio Disc Corporation
Weekend:	Visit Indianapolis
Third week:	Continue classes and work on project Visit Eli Lilly & Company
Weekend:	Visit St Louis and Six Flags Amusement Park
Fourth week:	Presentations in culture class Presentations in engineering design class Closing ceremony and presentation of certificates of completion

4. Classes

a. English classes

Classes are conducted by native speakers of English with extensive experience in teaching English as a Foreign Language. The level of the class can be adjusted to the level of the students. Here, the student is exposed to “real” English. It is the first time many of the students have had an English speaking teacher. Someone is available who speaks Japanese if that is necessary.

b. Culture classes

Communication does not depend solely on languages skills. To communicate effectively as a global citizen and engineer, one needs to understand cultural differences and ways to cross the barriers.[5] The culture class aims to cultivate these skills. This class is usually conducted by a native speaker of Japanese. The instructor can raise specific questions for Japanese students, explain the answer in detail, and be a mentor to the students.

c. Engineering Design classes

This class is conducted by an American engineering professor with the help of student counselors. The students are exposed to college level lectures in English, try to comprehend what they hear, and work to complete a project of their own. The student counselors are a good source of English practice also. They can help the Japanese students in understanding the language, completing the project, as well as promoting the students’ communication fluency in addition to applying what they learned in the English classes.[6]

The students are allowed to choose their own project. They are from seven different departments of engineering; mechanical and mechanical systems, material systems and advanced materials, electrical and electronic, information and computers, human information science and management and information, civil and environmental systems, and architecture and environmental design. Students are appointed to groups according to their interests. While most have had a course in engineering design at KIT, they have never constructed their design and tested it. Making a materials list and procuring materials are new to them. Some of the projects chosen were:

1. Pitching (baseball) machine
2. Solar cooker
3. Smart car
4. Alarm clock for deaf person

5. Water filter for aquarium

Through designing, building, testing, and presenting the results in English, the students work and learn cooperatively, and their use of English improves as they interact with the counselors and instructor.[7]

5. Student counselors

The part of the program the Japanese students like most is the interaction with the student counselors. They eat together, work together, play together, study together, and talk until late at night. The counselors provide numerous opportunities for the Japanese students to observe, absorb, and conduct formal and informal communications. The counselors age range is similar to that of the Japanese students. This makes it easier for them to approach and share interests and concerns. Also, the experience of having to overcome language barriers with the counselors seems to give them the confidence to use English with others.

6. Results

The program seemed to be highly beneficial for the Japanese students. They were motivated to continue studying English after the program. Many of them became regular attendees of “English Lounge”, an informal English communication opportunity conducted by an English teacher four times per week at KIT. Some expressed their desire to return to the United States for further study by applying for the study abroad program at KIT. Table 1 is a list of participants in this program that later returned for further study.

Table 1 Japanese students who participated the Intensive English program who later studied abroad

Year participated	Initial	Year studied abroad
1997 (8 participants)	Y.K.	1999
	H.I.	1997
	I.Y.	1997
1998 (13 participants)	K.H.	1998
	M.I.	1998
	N.K.	*participated English speech contest in 2000
	K.Y.	1998
1999 (9 participants)	T.F.	1999
	S.H.	1999
	T.K.	1999
2000 (16 participants)	J.F.	2001

	K.T.	2000
*2000 (New Zealand, March)	S.O	2000
2001 (9 participants)	H.I.	2002

Although not so apparent, some other participants have become role models for other students at KIT in terms of English study. Some of them continued to attend engineering courses conducted by American visiting professors at KIT.

The program also seemed to be influential on American student counselors. Four American student counselors out of nineteen later decided to go to Japan to study. Three have studied in Japan and later helped Japanese students in the program. American students who worked with the Japanese students are listed below. Table 2 lists counselors who studied in Japan.

Table 2 American student counselors who studied in Japan

Year participated	Initial (alphabetical order)	year studied in Japan
1997	F.B.	1998
	S.H.	
	A.J.	
	S.L	1998
1998	P.C.	
	R.K.	1999
	K.S.	1999
	C.T.	
1999	R.L.	1997
	D.L.	
	J.R.	1998
2000	T.A.	
	T.C.	
	D.C.	
	J.L.	
2001	M.C.	1999, 2000
	A.M.	
	R.R.	
	J.S.	

7. Discussions and recommendations

The program seems to have a considerable amount of positive influences both on Japanese participants and on American student counselors on their future directions.

Since this kind of exchange program can promote student motivation, we should exploit this opportunity and create follow-up programs. The programs should be designed to provide continuous English training for a longer term for returnees. This would provide them with more chances to apply for study-abroad programs and become more successful at American colleges.

We should consider having American students involved in such programs, providing them opportunities of being exposed to different cultures while still at home. Even students who do not initially think of going abroad might become motivated. Also, this can provide opportunities for financially challenged students to meet and work with students from foreign countries without the expense or traveling abroad.

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