

Cultivating Cultural Competencies through Various Classes

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Abstract — *Engineering college students feel the need for a good command of English and cross-cultural skills as well as technical skills. However, engineering colleges are not always able to provide classes which deal with cultural issues due to their overcrowded curricula. In this paper, the authors discuss various ways to provide such opportunities through foreign language classes, social science classes, and engineering classes. In foreign language classes, cultural information can be introduced by discussing differences in vocabulary usage, sentence structure, intonation of speech, gestures, frequency of eye contact, and so on. The cultural information can also be included in listening and reading materials so that the students will naturally be exposed to the target culture and develop interest. Conversation practice can be an excellent example to show cultural behaviors and norms. By installing project work towards the end of the course, the students can explore their interest in the target culture in a variety of ways. In social science classes, cultures can be presented both in direct ways and in indirect ways through introducing cultural theories, statistics, photos, videos, icons, people, and etc. One will just need to find every opportunity to point out and discuss indicators of the culture. Even in engineering courses, different teaching styles and expectations by faculty and by students with different cultural backgrounds can be worth discussing and exploring. Differences in preparing and presenting technical ideas are also important issues to be dealt with when students wish to be successful engineers in the globalized world. In all, any class has a potential to expose and to train students to cultivate their cultural competencies. Suggestions for introducing cultural information are, 1) to be flexible employing any small or discreet cultural information into classes and discussing about it, 2) to give students choices to accept or to reject the target culture, 3) for the teacher to re-examine if s/he has any bias, stereotypes, or prejudice, and if they are transferred to the students.*

Index Terms — *Cultural Competence, Curriculum, Globalization, Higher Education.*

INTRODUCTION

In Japan, globalization is a pressing matter. Nihon Keizai newspaper recently published a survey result in which 34% of 1032 respondents (company workers, age 20 and above) have contact with foreign workers at their job. [1] Their companies are not necessarily foreign companies. In fact, 89% of those companies are Japanese. According to the survey, the respondents feel that the advantages of having foreign coworkers are (1) making their workplace more creative with new ideas (approximately 50%), (2) having ‘changes’ (more than 20%), (3) finding business problems that are difficult for Japanese workers to identify (more than 20%), and so on. The disadvantages to have foreign coworkers are (1) making culturally-embedded communication / understanding difficult (a little more than 50%), (2) finding their coworkers’ level of Japanese problematic (more than 30%), (3) feeling their coworkers’ attitudes too self-imposing (20%), (4) finding their co-workers’ resistance to learn Japanese customs (a little less than 20%), and etc. The top 4 responses on the disadvantages are regarding communication and culture-related problems.

Nakayama and others [2] reported that Japan’s top engineering college students felt it was most important to have English competency and cultural adaptability for their future careers, but also felt that their preparations in these areas were inadequate or insufficient.

Our own survey on learning objectives at Rose-Hulman Institute of Technology (RHIT) [3] confirmed that 45.8% of senior students rated ‘engaging the international dimensions of my profession’ important or very important, while only 2.8% of them felt they were very well prepared for it. 23.6% felt well prepared while one-third felt barely prepared or not well prepared. Another attribute, ‘ability to communicate effectively’ had a 95.8% important to very important rating. Unfortunately, only 65.3% of the students felt prepared, or very well prepared, in this very important attribute. In contrast, in areas concerning knowledge of mathematics, science, and engineering, or ability to design and conduct experiments as well as formulate and solve engineering problems, they rated their preparation as well over 90%. Engineering students in both countries are aware of the importance of cross-cultural competencies and skills. Martin and Vaughn [4] define cultural competence as:

‘Cultural competence refers to an ability to interact effectively with people of different cultures. Cultural competence comprises four components:

- (a) Awareness of one’s own cultural worldview
- (b) Attitude towards cultural differences

- (c) Knowledge of different cultural practices and worldviews, and
- (d) Cross-cultural skills.

Developing cultural competence results in an ability to understand, communicate with, and effectively interact with people across cultures.’

The authors have been attempting to provide knowledge and trainings to cultivate these skills in courses stated below.

1 FOREIGN LANGUAGES COURSES

Many educators might think that it is easy to include cultural skills training into foreign language courses. Quite contrary to that notion, language courses are crowded with training for listening, speaking, reading, and writing. However, without cultural knowledge and training, the language itself cannot be fully functional. In addition, it is one of the strongest reasons for students to learn the language. Many of them express strong interest in the target culture. The authors require students to give presentations in the foreign language at the end of language courses. Over a 10 year period, a majority of engineering students chose cultural themes over technical themes. Thus, it is very important to include cultural information and training for their motivation maintenance as well as for their language competency development.

In order to utilize limited instruction time, cultural information and skill trainings should be embedded into teaching materials. For example, material for exercising pronunciation can be a menu in the target culture. The teacher can stimulate students’ interests in culinary tradition of the culture and can promote discussions while teaching pronunciation. Reading materials are also very good sources of cultural information. Through reading practice, the students can learn different cultural practices and can reflect and compare with their own cultural practices. The students are required to give presentations in the target language. They can choose any themes, but they tend to waste time and have trouble finding them if they do not have a lot of information on the target culture. They can be inspired by many of the topics dealt with in the course. This is the reason why such information should be embedded in the material.. Table 1 shows the learning materials and students’ chosen themes.

Introduced Materials	Training Aimed for	Students’ Chosen Themes
Menu	Pronunciation, Listening	Culinary Tradition, Ritual Food
Tea Ceremony	Reading	History of Tea Demonstration of Tea Ceremony
Festivals	Reading, Writing	Star Festival (July 7 th), New Year, Birthday Celebration, Rituals, Folklores, Historical Tales
History of Letters	Reading, Writing	Development and Changes of Letters, Calligraphy
Ancient Innovation	Reading	Ancient Technology Traditional Medicine

TABLE 1
MATERIALS INTRODUCED AND CHOSEN THEMES

For Japanese students, presenting in their native language can be challenging. In the Japanese education system, they have never been asked to express their thoughts and ideas before coming to colleges. They need detailed instructions for presentations and need a lot of support and encouragement. The most effective method seems to be a ‘modeling’ where the teacher gives his/her own presentation ahead of time, providing the students a framework. Also, students have been expected to do perfect work throughout their school years, and they become afraid of making mistakes. Overcoming the fear and taking risks are also cross-cultural trainings for them. Also, creating a supportive atmosphere among peer students is helpful for them to relax during their presentations. Discussions and practices for giving support to their classmates during the presentations are also needed. It is worth noting from two figures that the students tend to follow almost exactly the way the teacher makes his/her presentation.



FIGURE 1
STUDENTS' PRESENTATION



FIGURE 2
TEACHER'S PRESENTATION 'MODELING'

2 HUMANITIES AND SOCIAL SCIENCES COURSES

Cultural discussions and trainings can be incorporated into many courses. One example is a course titled 'Societies and Cultures of Pacific Rim Countries'. At the beginning of the course, it is a good idea to present various ways to interpret cultural information such as symbols, rituals, and customs, in order to analyze its core, the value system. If one can see and understand what is important for people in a particular culture, s/he can understand cultural behaviors and priorities of the people. Thus, adjusting and adapting the culture can be easier. Table 2 shows the typical course schedule (9 weeks course) for such courses.

Week	Content
1-2	Cultural Theories Definitions, Symbolism, etc.
3-5	Discussions on Countries, Practices for Applying Cultural Theories
6	Survey on a Culture or a Country of Choice
7-8	Individual Presentation and Peer Feedback
9	Wrap-up of the Course, Reflection

TABLE 2
COURSE SCHEDULE

Because the students, engineering students in particular, are not necessarily familiar with these theories and concepts, practices applying them to analyze cultural behaviors are important and should be given enough class time (week 3-5 for example). The students can then look into cultures of their choice and further practice analyzing them for their final presentations. Students' evaluations for the course have been generally quite positive, and sometimes appreciative of the experiences they had for learning about cultures and for being exposed to different perspectives. One representative evaluation is: "I had not paid much attention to cultural differences before and simply made judgments based on my own cultural values. But after finishing this course, I felt that I could see the different value through people's behaviors and practices".

3 NATURAL SCIENCES COURSES

Courses in this field devote time for discussing facts, figures, formulas, and so on, but they can also be good opportunities for cultural trainings. We have invited professors from different cultural backgrounds to teach such courses. They bring different teaching styles, expectations, and logics to their courses. The students might have difficulties adjusting to them, so that the help and support from Japanese professors might be necessary. We have formed a teaching team of American and Japanese professors to conduct an engineering course (Compressible Fluid Dynamics) and a writing scientific paper and presentations in English course. The latter presented particular challenges for the students. Writing papers in a foreign language is difficult enough, but the students also had to learn the different flow of logic between English and Japanese. One such example is that in Japanese, conclusions are usually reserved for the last part of writing whereas in English, they should appear in an abstract part. Japanese students had to familiarize themselves with that structure. (Figure 3) However, this can be a good source of discussions and training. Oral presentation training also presents interesting issues. Eye contact, hand gestures, relaxed attitude, and spontaneity are valued in Western presentations whereas they are seldom seen in Japanese presentations. Thus, these skills and attitudes are extremely difficult for Japanese students to acquire. Discussions on their usefulness should be incorporated into the course, and many repetitive practices are needed. Although it is not easy to internalize these skills, the training clearly present many interesting cultural issues and makes many students aware of them.

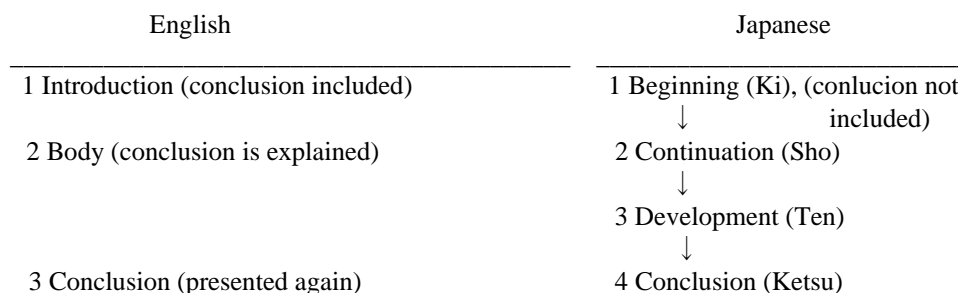


FIGURE 3
WRITING AND PRESENTATION STRUCTURE, ENGLISH VS. JAPANESE

DISCUSSIONS

We as educators would like to offer various courses to provide students with the necessary skills and knowledge for their future. However, many curriculums cannot squeeze in more time since there are already too many courses for students to take. Courses for cultivating cultural competencies and providing training are one of the neglected courses. Now that the students feel the need for such skills, and we feel that they are important, we should find a way to include them into existing curriculums. Our attempt to use every opportunity in conventional courses to discuss cultures and to create competency training is one response to the situation. We hope to find and to create more and better ways for future engineers.

SUGGESTIONS

In order to create courses discussing and cultivating cultural competencies, we would like to make these suggestions.

- (1) One should think that cultures can be discussed in any course and should try to find the opportunity
- (2) Everything can be a source of cultural discussions and training. One just has to be flexible in thinking.

- (3) Students should be given freedom to choose if they want to accept or reject a particular cultural point of view, interpretations, values, and so on. In other words, instructors should be careful not to impose their own points of view or values on their students.
- (4) instructors should re-examine his/her own cultural biases, prejudices, stereotypes and try not to impose them on the students

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