M-Skype as a COIL program; Collaborative Online International Learning

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Abstract
M-Skype is an online collaboration with MIT and the University of Tokyo, where the students talk on an internet telephone and teach each other their language and culture. The program was started in 2009 and more than 140 students on our side have studied English and American culture in this program since then.

COIL is a Collaborative Online International Learning in which American Center for Education is involved and trying to connect American universities to the universities in the overseas countries, especially in Japan. To make M-Skype one of the COIL programs, the author attended the leadership academy of COIL which was held in Washington D.C. in April, 2017. Many universities in the US expect to have some international partners to do some collaborative works, however, many obstacles lie in the way. How to remove those obstacles and have an effective learning outcome were discussed in the academy.

Keywords: Online learning, International learning, collaborative learning, COIL, ACE.

1. Introduction
M-Skype started in 2011 as a language exchange program to strengthen linguistic competence of students of both universities. In America, not a few students want to learn Japanese. Their main purpose is to understand Japanese animation and comics in their original language. Motivation of a long ago such as absorbing Japanese technology has been reduced. On the other hand, Japanese students still want to go to the United States for research and employment purposes rather than touching American culture, the motivation is that they need language acquisition for that purpose.

Thus, although the main purposes are different, it remains a big objective to understand different cultures and to acquire languages.

The exchange between MIT that is one of the world's leading engineering universities and the University of Tokyo, School of engineering started from a personal acquaintance of two teachers rather than organizational exchange. Professor Miyagawa, a professor of linguistics at MIT and Professor Morimura, who is a vice-director of the Global Center for Innovation in Engineering Education at the University of Tokyo, were acquaintance from the past. Professor Miyagawa's doctoral student, Ms. Akiyama's research theme was VFT (Very Fast Track), which is an intensive program of mastering languages in less than half of usual period of normal, and from the hope of obtaining the assistance from the University of Tokyo, they asked the University of Tokyo students to take part in the skype conversation. In order to solve the proposition of how to secure some students in a permanent way, we registered it as a program under the umbrella of the Creative Engineering Program, we have set up a mechanism to secure students and give units.

M-Skype program to talk in Japanese and English through Skype began from fall 2011. MIT students taught English while learning Japanese, and U-Tokyo students taught Japanese while learning English to create equal affinity.

You cannot hope for persistence simply by relying on one side, such as teaching Japanese or just learning English. Therefore, it was effective for the continuation of the program that initiated interactive at the beginning[1][2].

In the initial class, at the University of Tokyo, many students have applied though the MIT side were only 8 people. It was an attractive program on the University of Tokyo side because they can talk directly with MIT students who are famous internationally, so it was necessary to select a large number of applicants. Selections were made by submitting a motivation essay and 21 students were selected.

2. Content of the program
The lesson took 15 weeks by repeating the three elements "investigation, conversation, reflection". There was a time difference of 13 hours between Eastern United States of America and Japan (Tokyo), and it was difficult for either students to arrive early in the morning or stay till late at night to do classes in real time in both ends. For this reason, Skype conversation was done by making appointment at their own flexible time zone, individually at home or in the laboratory by appointing a partner for a student.

Time zone difference was a big issue but there was even more serious problem. It was the difference of the academic calendar. Adjustment of the academic calendar at both ends was inevitably needed. Here is the table that shows the difference of the academic calendar and the activeness of the students each month.
Table 1. Academic Calendar and the students’ activity

<table>
<thead>
<tr>
<th></th>
<th>Japan</th>
<th>US</th>
</tr>
</thead>
<tbody>
<tr>
<td>April</td>
<td>School year starts</td>
<td>Start of the fourth term</td>
</tr>
<tr>
<td>May</td>
<td>Skype starts</td>
<td>End of the school year/tests</td>
</tr>
<tr>
<td>June</td>
<td>Summer camp</td>
<td>Break</td>
</tr>
<tr>
<td>July</td>
<td>End of the term</td>
<td>Break</td>
</tr>
<tr>
<td>August</td>
<td>Break</td>
<td>Break</td>
</tr>
<tr>
<td>September</td>
<td>Break</td>
<td>School year starts</td>
</tr>
<tr>
<td>October</td>
<td>Fall semester starts</td>
<td>Mid of the term</td>
</tr>
<tr>
<td>November</td>
<td>Skype starts</td>
<td>End of the first term/ Thanks giving holiday/ new term starts</td>
</tr>
<tr>
<td>December</td>
<td>Skype session</td>
<td>Christmas break/end of the term</td>
</tr>
<tr>
<td>January</td>
<td>End of the semester</td>
<td>Beginning of the third term</td>
</tr>
<tr>
<td>February</td>
<td>Visit tour</td>
<td>Mid of the term</td>
</tr>
<tr>
<td>March</td>
<td>Home leave</td>
<td>End of the term</td>
</tr>
</tbody>
</table>

The active period is indicated in dark mesh in the table. As you can see, the active period for study is deviated even by the school calendar. For this reason, May when Japanese schools want to actively advance may be a busy time with the exams at the end of the school year in the United States, or they go on a journey after the exams. On the other hand, in the active September and October in US, the fall semester has just started in Japan and the students are not quite ready. Finally universities in Japan starts to get on track in November, America is already not active because many students return home for Thanks Giving or Christmas etc. In January, February and March, when the United States is relatively calm, students in Japan are restless with graduation thesis deadline, reports and exams at the end of the school year, or they go home for spring return.

Thus, the deviation of the academic calendar is a considerable problem for Online International Learning. Even if you can overcome the jet lag, this one is more difficult to overcome. There are cultural differences in the background, of course, and it is important to learn the difficulty of matching, but it is an obstacle when actually managing it.

The contents of the classes are selected in the student's eyes and the cultural differences such as introduction of activities in the university, differences in diet culture, in how the students play, and in job hunting and the like are often chosen. Investigate the circumstances of Japan and the U.S. based on their interests, discuss it with Skype partners, and discuss differences and common points. They take the results back to class and present. This became a flow of the class.

If it is difficult to adjust the time for Skype meeting, it will take two weeks or more to skype and it will take longer for presentation depending on the number of participants. We made adjustments while making fine progress.

3. Advantages and Disadvantages of Online Education

We are going to think about advantages and disadvantages of the online education.

First, the advantage is that you can meet online, even if you are not nearby and you do not physically share a place. In addition, due to the technology that enables online learning, it is possible to share various activities. You can collaborate on works online, play along online, or spread out to many people.

Conversely, as a disadvantage, if there is a difference in technical capability in both sides, collaboration becomes difficult and dependent on one side. At the same time, a common failure of online circumstances such as internet lines not connecting properly when necessary will affect the class and cause troubles. In a bad case, one lesson does not work at all due to that trouble and it has a big impact on the schedule. Another possibility is leakage of information. Both parties can trust each other but someone who is not concerned can also hack the information listed online.

There are simultaneous problems as part of the shadow with the development of the Internet, which is a sarcastic problem of prolonging disadvantages as well as advantages.

Internationally, MIT and the University of Tokyo did not have any problems as they were trusted and respected partners, but in the case of being done between the US and the developing countries, US universities have to be careful as it may show the superiority of the United States. Even in Japan with the countries in Asia and Africa may have something similar in the case of the United States if the students or faculty’s way of thinking is not well educated, so we have to be careful as well.

4. What’s COIL?

COIL is an abbreviation of Collaborative Online International Learning. This word COIL is an educational system which has been distributed within U.S. by ACE (American Council on Education). A leadership academy
about COIL was held at the head office of ACE in Washington D.C. on April 27 and 28, 2017, the author was asked by the MEXT to attend that academy as a representative of University of Tokyo along with Keio University, Kansai University, and Osaka City University who have been implementing COIL education system in Japan.

In the United States, too wide a country is and states are independent as autonomous region, it is rare for students’ eyes to look outside the province, so there are few opportunities to look overseas. So far, only 4% of university students have studied abroad in overseas universities and at the community university, it is 0.1%. There are several reasons for this:

1. Culture is too different,
2. It is too risky,
3. You cannot afford a financial deal to go and leave the university.

Therefore, such a study meeting was held by ACE with the intention of using COIL for students in the United States to learn the international sense. COIL has been progressed ahead in SUNY (State University of New York), so they showed the program concept and implemented examples so far, and the technology to support this program. Penn State University has been doing COIL with Mexican Institute and they showed the real online conversation.

Mexico with no time difference for the United States is a preferred hand as a counterpart of the COIL, but with the economic disparity, attention must be taken not to end as a result of showing that “Our lives are better than you” have been mentioned. Brazilian and South American countries are also desirable as opponent as they have no time difference, but people in the American educational field are more interested in Asia, and opinions that they would like to conduct online international learning with China and Japan are strong. In Japan, Kansai University is a step ahead, and since it promotes COIL with 13 universities in 7 countries, their know-how was introduced [3].

The problem raised here is that,

- Deviation in academic calendar
- Deviation in time zone \( \rightarrow \) It may become an after school program and cannot be given units.

Important things to remember are:

- Learning outcome,
- Global,
- Assessment.

We must practice these carefully and guide them to solution in the future.

5. Should M-Skype be one of the COILs?

Problems remain as to whether M-Skype that we have been doing should be certified as a COIL or whether it is better to stand alone. As a practitioner, if M-Skype that has been well recognized internally and externally will be collected as one of COILs, we feel regret. There are examples by other colleges collaborating with overseas partner schools online, some people think it is also possible to summarize it as COIL. However, in order to promote the concept of COIL, there is a limitation if it is done at each university respectively, but there will be a big achievement if they are put together. Therefore, one idea was shown in the discussion among persons in charge (practitioners) of each university that if we create a section or a platform called “COIL” and set up requirements, the platform will decide whether each program could be certified there or not. They can create a big organization called “larger COIL” by collecting many programs that meet the requirement. In the existing educational programs, if you wish, the program could be certified as a COIL, and those who do not want will not be certified.

6. Learning outcomes

Main learning objectives are to understand diversity in cultures and acquisition of the languages.

Students expected to practice English (63%), do international networking (21%), and interact with MIT students (16%) at the beginning of the class. You will see the result at the end in Yolanda Alberto Ernandez’s paper [4].

Degree of language acquisition is shown in the table 2 below. The data were taken by OPIc test done by NEC in 2015. Our M-Skype class was the best one that acquired language most when post-test scores are compared with pre-test scores. The effect is 0.42 and the ratio of attainment is 100, which is enormously high compared to other language acquisition programs at other universities.
### Table 2. Degree of Language acquisition

| No | University                        | Class                  | Number of people | Pre SD | Post SD | Effect amount | UP/DN | AL | Practical ratio | Reaching ratio |
|----|-----------------------------------|------------------------|------------------|--------|---------|---------------|-------|----|----------------|----------------|----------------|
| 1  | The U. of Tokyo                   | Engineering M-Skype    | 20               | 6.8    | 1.54    | 7.5           | 1     | 0.42 | 65              | 1              | 70             | 100           |
| 2  | A University                      | Seminar of Economics   | 30               | 5.8    | 1.58    | 6.2           | 1.71  | 0.25 | 20              | 36.7           | 60             |
| 3  | 3rd year                          |                        | 19               | 5.6    | 1.84    | 5.9           | 1.87  | 0.16 | 36.8            | 36.8           | 63.2           |
| 4  | Same as above pregraduation       |                        | 19               | 5.9    | 1.87    | 6.2           | 1.89  | 0.16 | 21.1            | 31.6           | 73.7           |
| 5  | K University                       | KU-COIL                | 13               | 4.8    | 1.36    | 5.2           | 1.09  | 0.29 | 46.2            | 76.9           |
| 6  |                                  |                        | 20               | 4.7    | 1.23    | 4.9           | 1.02  | 0.16 | 25              | 7.7            | 70             |
| 7  |                                  |                        | 13               | 4      | 1.15    | 4.6           | 1.12  | 0.54 | 61.5            | 5              | 53.8           |
| 8  |                                  |                        | 99               | 3.9    | 1.09    | 4.1           | 1.04  | 0.22 | 24.2            | 26.3           |
| 9  | J Women's University              | Teaching materialskype | 23               | 3.4    | 1.08    | 3.7           | 0.83  | 0.28 | 21.7            | 2              | 17.4           |
| 10 | N University                      | Short-term camp for prep to study abroad | 29 | 2.5 | 0.63 | 3.1 | 0.75 | 0.87 | 55.2 | 0 |

### 7. Future Plan

Collaborative online international learning (COIL) includes great potential as I have mentioned. Promoting this in Japan and the United States has great merit for college students both in the United States and Japan, and for societies not included therein. To promote COIL, it is important to know how to proceed within the university, whether top down or bottom up, what level to promote, department head or president level, or who should operate, faculty or staff. By examining practical examples, solving them one by one and further developing them, there will be great results. The internationalization of university students is also an important factor for society, and its impact on the future is very large.

### References

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### Biography

Kumiko Morimura, Ph. D. is an executive researcher at the University of Tokyo, where she has been leading the Global Ware Project team for these 10 years. She finished her doctoral course and received her Ph.D. in Interdisciplinary Information Studies from the University of Tokyo in 2006. After she received her Ph. D., she started working at the University of Tokyo as a lecturer, then, promoted to an associate professor in 2011, and became a professor in 2016. She founded Special English Lessons in 2006, started SNOWBALLS program in 2009, succeeded Academic Writing and Presentation in 2008, started M-Skype in 2011, and ERIC in 2010 and thus she built the systematic structure of English education in the School of Engineering at the University of Tokyo. She is the first receiver of the Dean’s Award in Education. She received a JSEE Award in 2015. She retired from the professor in March, 2017 and became an executive researcher from April, 2017. She is an active member of JSEE, IEEE, and J-ser.