

Presidents Forum of **S**outheast and South **A**sia and **T**aiwan **U**niversities
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E-Classroom International Mobility Program

**Execution of Program and Sharing of
Resources with Member Universities**

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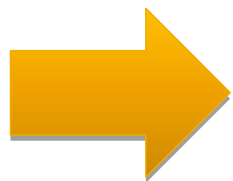
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E-Classroom

■ Classroom ?

- Listen to lectures
- Show slides, video
- Interactions between professor and students
- Interactions among students

E-classroom would help connecting remote classrooms, and allow them to share the same experience (in real time).



E-classroom is an ideal system for use in Sustainability Education Programs



E-Classroom Benefits

- **Combines students with different backgrounds**
 - Different perceptions on a same question
 - Help students realize where the commonalities are between very different cultures
- **Share resources for teaching**
- **Higher education tends to give professionals narrower view on issues**
 - The diversity in students and professors help developing and maintaining birds-eye view



Example:

Connecting Japan and Taiwan

- **Center for Sustainability Science (CENSUS), Hokkaido University (Japan)** offers classes related to sustainable development
 - Competence in: Social sciences, Agriculture, Forestry, Marine resources
- **“Introduction to Sustainability Science”** was given to undergraduate students in NCKU (8 students) and Hokkaido U (around 30 students)
 - NCKU: 7 from Environmental Engineering, 1 from Taiwan Literature; 3 Freshmen, 4 Juniors; 2 international students (Malaysia and Macau)
 - Hokkaido: A good mixture of disciplines (math, history, economic, agriculture, etc.); Freshmen~Seniors



Class schedule

- Orientation & Guidance
- Histories and Concepts of Sustainability
- Life Cycle Perspectives on Production and Consumption
- Sustainability and Economic Crisis
- Energy issues and technologies
- Land-use sustainability
- Natural Resource Management
- Corporate Social Responsibility
- Food Security
- Group Work Demonstration by Faculties
- Student Group Works (2 weeks of presentation)



Lectures

- All the lectures were given in English of many different kinds (Japanese, African, Indian, Malay, New Zealand)
- Students in both sides were shy in the beginning. They did not ask much questions, until students start working on group works
- Variety of viewpoints offered by professors with different specialties opened our eyes and provide food of thoughts
- The class content has grown up in a very unique set of topics
- Differences in teaching methods were highlighted
- Many had problem in understanding the contents of the lectures, so follow-up was necessary



Staffs

- **Japan: Professor N. Tanaka**
 - Dr. Chittenden (Group Work Facilitation, Lecture)
 - Dr. Tsuji (Technical support)
 - Dr. Ishimura (Group Work Facilitation, Lecture)
 - Other professors from different schools in Hokkaido Univ. and University of Malaya (Lecture)
- **Taiwan: Professor Y. Fukushima**
 - All of above roles, and a lecture



Follow-up Lecture

- After the 1.5 hour online session was over and class dismissed, the Taiwan classroom continued on with back reflection of the topics taught on that day (~ 15-30 min)
- The lectures delivered a wide spectrum of topics related to sustainable development in varied ways. Students found difficulties in understanding much of contents, due to lack of background knowledge.
- Records were taken and sent to all the class using the mailing list. The mailing list system also archives the messages that could be referred through web.



Group Work

- **Students were asked to choose representatives and work together on planning of group work presentation**
 - The meetings or representatives were also held over teleconference system
 - In the beginning, they were looking for some topic they could work together in a mixed group. Eventually, they ended up with groups in Taiwan and in Japan work individually.
 - Taiwan presented how sustainability of indigenous cultures are sought, and what the threats and problems were.
 - Japan presented several topics, including sustainability of fishery industry, whaling culture, and how these are relevant with food supply



Questionnaires & Free talk

- **“What do you want to sustain?”**
 - Japan: Environment, resources, culture ...
 - Taiwan: Health, body, personal wealth, ...
 - Staffs: Dreams, hope, happiness, ...
- **“Where will you be in the future? What will you be doing?”**
 - Japan: Students tend to hope to stay in Japan, half in Tokyo, the other half in local cities. Many wished to work back in their home town.
 - Taiwan: All wished to live abroad. They expressed that they love Taiwan, but they did not want to work in Taiwan in the future. They said it might be the influence of education before entering university.



Hardware and Software

- **Polycam & Lifesize Teleconference Systems**

- Multipoint server, HD Video, Camera, Remote controller, LCD Display, Microphone, Speaker, etc.

- **Internet**

- When it comes to evening, the connection becomes slower. Simultaneous connection with Hokkaido-Tainan-Indonesia failed.

- **MS-Powerpoint, Excel**

- Sometimes, we use those for sharing memos taken

- **Mailing List Management System**



Lessons

- The two classes in Taiwan and Japan were combined. No stress in communication as long as only two institutes were connected.
- Both NCKU and Hokkaido benefit from lectures that were not offered otherwise, due to lack of profession in each university
- Special teaching and facilitation skills to enhance and vitalize interactions in the class would exist
- To facilitate questions and discussions as well as providing technical solutions to the equipments, Staffs need to attend be available on the both sides
- The preparation team for the group work presentations faced lots of practical communication issues, which itself was found to be a great experience in the end. Making the equipments even not during the class might work well once relationships were well established.

