

Ways to promote ICT International exchange through joining with online projects

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1. Background

We now live in the era of e-learning using the advanced technology of ICT.

We are rapidly entering the u-learning era of revolutionary unified computers, communications, broadcasting and the Internet, all of which inevitably change the educational environment.

Anyone can learn everything anytime and anywhere.

Interchange between economies used to happen online and offline, but these days it takes place mostly online.

Especially, APEC Future Education Consortium proposed the necessities of ICT model school, demanding to share experiences in ICT in education and facilitate international exchange among schools.

Therefore, our school have conducted online projects with 3 schools in the Philippines using ICT, that will involve teachers and students.

2. Purpose

Our model school's purposes includes exchanging ICT materials in education and the formation of common learning environment involving 3 schools.

The allied schools are Eulogio Rodriguez Jr. High School(ERJHS), Novaliches High School (NHS), and Juan Sumuling High School(JSHS) in the Phillipines.

The following are our specific goals:

First, the allied schools will conduct the online project together.

Second, they can explore the formation of joint classes through the online interactive classes.

Third, we can better understand Korea and the Philippines, promoting the culture, language and history of the participants.

3. The Period and Participants

1) Period : May 1,2005 ~ April 30, 2007(2 years)

2) Participants : 21 teachers and 785 students from Jinnam Girls' Middle School in Korea, 5 teachers and 70 students of Eurogio Rodrigues Jr. High School, 5 teachers and 79 students from Novaliches High School and 3 teachers and 50 students from Juan Sumulong High School in the Philippines.

4. Process

A. Objectives I

We develop 4 cooperative projects with the allied schools.



1) Remodeling the school web page in order to facilitate contact between teachers and students and building up English web site (<http://ictmsn.org>), a user-friendly exchange with partner schools.

The site has a storage capacity of 4Gbytes, 6Gbytes traffic limit per day, and the navigation depth is less than 3.

It is predominantly text for effective contact.

2) Training courses for ICT international exchange activity

18 times : for ICT apply materials.

29 times : teachers meeting(JGMS)

1 time : joint seminar between Korean and the Philippine teachers.

twice : students meeting between Korea and the Philippines students in the Philippines

3 times : joining workshop

2 times : joining seminar

1 time : joining forum

3) English conversation courses

English conversation program for students: 3 times per week

4) How to use ICT tools and how to write e-mails

In computer classes and after-school class, students learned how to use ICT.

In English classes, students learned how to write and send e-mails on the English web page by themselves.

About 78% of student body attended these classes.

5) Build up the corner for understanding APEC and the Philippines

We pin up papers, photos and maps of APEC and the Philippines on the school corridor walls.

It helped students and teachers feel closer to APEC and the Philippines.

B. Objectives 2

We develop and share ICT learning materials for the school subjects and projects.

1) Analyze the Philippines' school textbooks and lead online joint classes.

We gave our textbooks(English, math, Science, Computers) to our partner schools and took their textbooks(English, math, biology, physics, chemical, Earth science) from our partner schools.

Then, we analyzed each other's textbooks for common learning factors.

<table 1> The common factors in Science

common factors	Lesson		ICT materials
	Korean Textbook	Philippines textbook	
densimetry of matter	Properties of matter	Physical properties of matter	densimetry of matter by volume and mass
How to separate the mixed materials by filtering, extraction, distillation, and fractional Crystallization	seperating mixtures	Ways of seperating mixtures	seperating a simple mixtures
factors of solubility		Solubility	Graph analysis solubility depend on degree
Structure of a leaf	Structure and function of plants	Plants as energy producers and suppliers in an Ecosystem	ppt, video
differences between animal cells and plant cells	Structure of plant	plant and animal cells	observation, microscope

<table 2> The common factors in English

common factor	Lesson		ICT materials
	Korean textbook	Philippines textbook	
Asking and Giving Directions	1st year- Lesson6. May I Take Your Order?	Third Year III (SEMP2) Expressions in Giving Directions (p.56)	PPT, CD-rom
Imperatives	1st year- Lesson1. Let Me Introduce Myself -Language Focus	Imperatives (p.104)	PPT, CD-rom
* Telling their own worries, Giving advice	1st year- Lesson7. What Can I Do? 2nd year- Lesson7. How to Study Smart.	Modals in Giving Advice (p.104)	PPT, CD-rom
Passive and Active voice	2nd year- Lesson6. Pictures Speak!	Present Passive and Active voice (p.118)	PPT, CD-rom
Telling cause-effect	2nd year- Lesson8. White Lies	Connectors to show Cause-Effect Relationship (p.139)	PPT, CD-rom
Express their own opinions	1st year- Lesson10. What Do You Think of the Uniforms?	Expressions in Stating Opinions/comments (p.211)	PPT, CD-rom
Agreement and Disagreement	2nd year- Lesson9. Safe Surfing on the Internet!	Expressions of Agreement/ Expressions of Disagreement (p.250)	PPT, CD-rom

<table 3> The common factors in Computer

classes	MS-Excel	MS-PowerPoint	Photoshop
1st	- Introduce Excel- Sum, Average, Rank, If Function	- Introduce PowerPoint - Draw Tool	- Introduce Photoshop - Rectangular Tool - Stroke
2nd	- Chart	- Animation effect	- Elliptical Marquee Tool - Lasso Tool - Magnetic Lasso Tool
3rd	- Variable chart - Data form of chart - Insert diagram in chart	- Organization	- Layer - Move Tool in layer image
4th	- Change stroke of Cell	- Chart	- Crop Tool - Zoom Tool
5th	- Evaluation	- Edit after Make Chart	- Gradient Tool - Paint Bucket Tool
6th		- Make Slide about Philippines 1	- Clone Stamp Tool - Brush Tool
7th		- Make Slide about Philippines 2	- ImageReady - Make Banner
8th		- Evaluation	- Evaluation

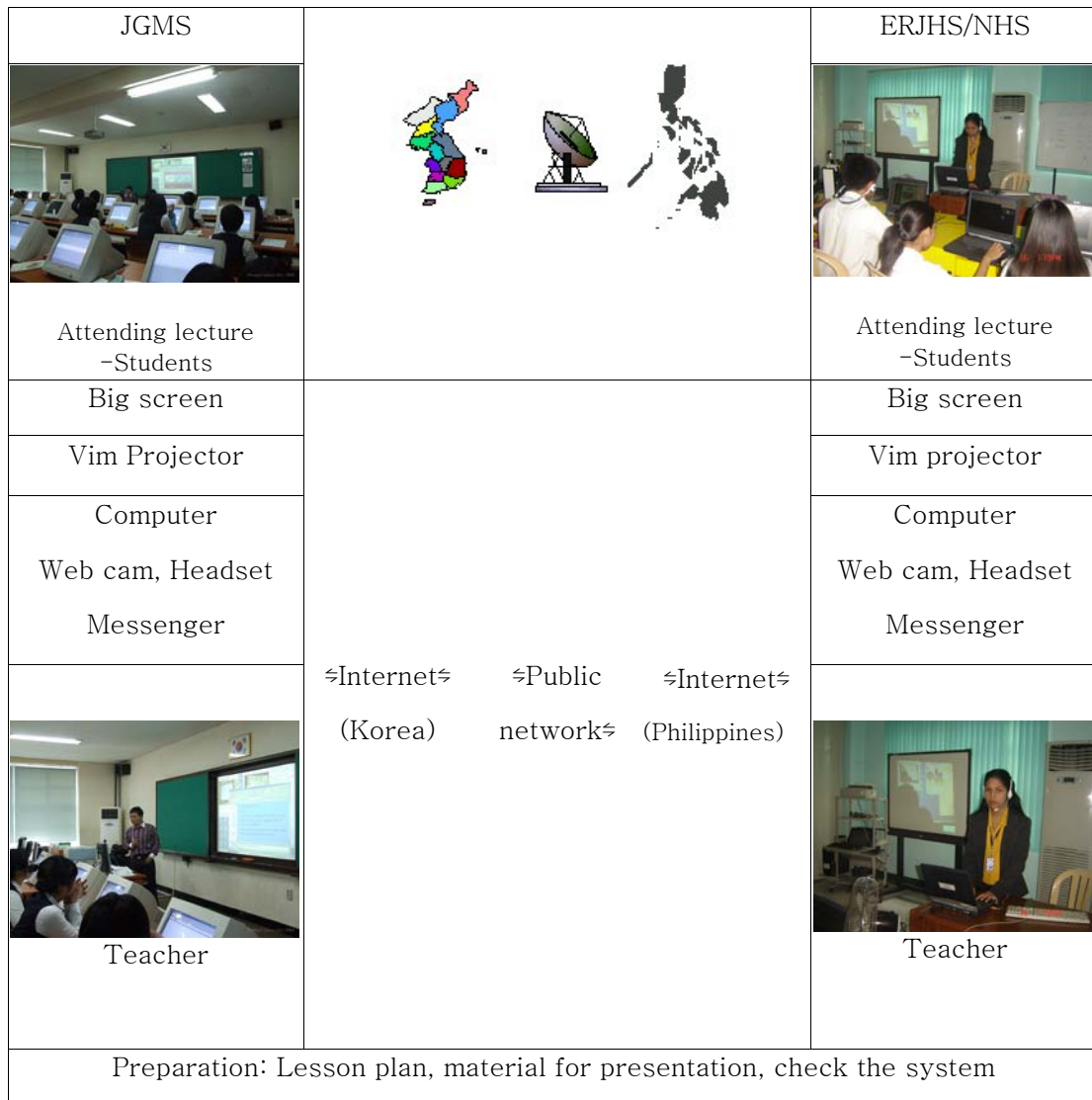
<table 4> The common factors in Math

Learning factors	The reason why we chose	ICT material learning style
th law of exponents	.the common factor with the 2nd grade textbook	PPT small group Cooperative learning
an equation of the first degree	.the common factor with the Philippines .to use the graph($y=ax+ b$) and solve	PPT small group Cooperative learning
simultaneous equations	the common factor with the Philippines textbook	PPT small group Cooperative learning
to solve simultaneous equations using addition and subtraction	the common factor with the Philippines textbook	PPT small group Cooperative learning

to solve simultaneous equations using dual space	the common factor with the Philippines textbook	PPT small group Cooperative learning
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We did English, Computer and Science class with the Philippines twelve times.

We communicated with the Philippines through Yahoo messenger during the joint class. Before the class, we shared our lesson plan. The following is the system diagram for the online joint class.



<fig2>Online joint class system diagram

<table 5> Teachers in charge of the joint class (Dec.1, 2006)

Subject	Topic	Teacher	
		Korea	the Philippines
Science	The differences between the vegetable cell and animal cell	Lee Misuk, Jeong Hyomi	Evelyn R. Baradas (NHS)
English	Open your mind and talk to each other	Lee Seohyong	Noel De Los Reyes Marian A. Bragas (ERJHS)
Computer	PowerPoint	Lee Kyujeong	Marian A. Bragas (ERJHS)

2) To select and perform the cooperative project

We analyzed the content of the Philippines textbooks and our own. Then we discussed and chose the best topics.

(a) To choose the project topic

Three schools chose the topic of the online project online and offline.

<table 5>Project topic and teachers

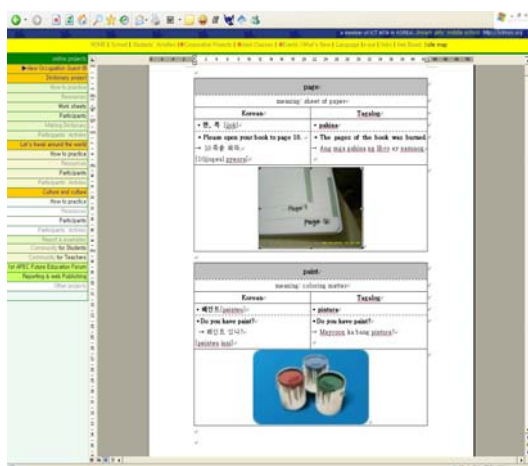
Project	Teachers in charge of the each project		
	JGMS	ERJHS	NHS (JSHS)
Occupation Quest	Hwang, Hasun Ryu, Eunsun Jeong, Jiyoung Choi, Jiyoung Lee, Seouhyang	Dr. Maria Noemi M. Moncada Aida Kapawan Noel Del Reyes Marian A. Bragas Bernard Rojas	(JSHS) Maria Lourdes G. Coronacion Verronica F. Liwag
Korean- English- Tagalog Dictionary	Hwang, Hasun Ryu, Eunsun Jeong, Jiyoung Park, Yuna Young, Jihee	-	Dr. Maria Noemi M. Moncada Dina O. Valenzuela
Let's travel	Hwang, Hasun	Dr. Peraldo	-

around the world	Ryu, Eunsun Choi, Jiyoung Lee, Jin Lee, Mikyoung Kim, Sanji Shin, Sunho Young, Jihee	AIDA KAPAWAN, Marian A. Bragas, Noel De Los Reyes	
Culture and Culture	Lee, Hyunju Hong, Deokeu Go, Yeonsuk Kim, Samseung Yun, Hyunmi Choi, Jiyoung		Dr. Maria Noemi M. Moncada Gilore E. Ofraricia, RUBY DE JESUS, Dina O. Valenzuela Evelyn R. Baradas

(b) Occupation Quest : This project involves searching for information about occupations on websites and in books. Students interview professionals in the field using a given worksheet, discuss the answers in a group, make a report and upload it on the homepage. In 2005, ERJHS, JSHS and our school shared this project on the website. It helped students learn more about the job of their dreams and understand the Philippines view of jobs. It was introduced in the conference of ICT and rated excellent as well as was recommended in highschool in the Philippines. You can see the outcomes of this project on our homepage <http://ictmsn.myi.cc/onlineproject.htm>.

(c) 'Korean-English-Tagalog Dictionary' project

Mr. Hwang (JGMS) and Dr. Moncada(ERJHS) suggested this project together at the third ALCoB conference. Teachers and students from both economies made the list of vocabulary and participated in this project. The Philippine students and teachers sent us 100 Tagalog-English entries with pictures



and example sentences and using this we made Korean-English entries. In Korea, we made 400 page Tagalog -Korean dictionary and uploaded it on the cooperative project website along with 150 useful expressions.

We plan to upgrade this dictionary and use it as useful material for understanding the two economies' languages.

(<http://ictmsn.myi.cc/onlineproject06.htm>)

(d) 'Let's Travel Around the World' project



A group composed of 5~6 students chose a economy they want to travel to and then researched the geographical features, climate, and social life of that economy. Students can calculated the real distance between Yeosu and their chosen economy using a scale. We connected the subject and contents such as etiquette - Ethics, plants and animals - Science

We suggested this project and discussed how to cooperate with ERJHS. We presented it using PowerPoint, and uploaded and shared each other's project on the homepage.

(<http://ictmsn.myi.cc/onlineproject06.htm>)

(e) 'Culture and Culture' project

We suggested this project as a way of understanding each other's culture. We did this project with NHS in the Philippines. We exchanged the literature, traditional plays, and music. Korean students read the philippine novels, narratives and poetry and drew the picture of them. The Philippine students also did this too. (Refer

<http://ictmsn.myi.cc/onlineproject06.htm>)

3) Making the ICT learning material and sharing online

Document for educating the ICT use, 145 photos, 53 drawings, 39 video materials and 12 music files.

C. Objectives 3

We can develop international interchange using various programs online and offline.

1) Making the day of the International exchange and board

We made the day of the International exchange on the second Saturday of the month. We made our students do homework about the Philippines and APEC. Students could learn about the Philippines and APEC through this process.



2) The online contest with sister school

We could encouraged the participants to better understand each other.

3) Visiting our sister schools and experiencing Philippine culture

We invited our partner schools'(JSHS and ERJHS) principals and teachers to our school Sept. 7-9 last year. We had a joint about the cooperative proposal and they watched classes during their stay at the joint



meeting and also we attended the first APEC Future Education Forum together in Busan.

We made a detailed plan about the schedule of the project to get best effect of their visiting to our school before they visited. They introduced Philippine Education using ICT and one of our teachers, Hwang Ha-seon also presented on this topic.



Any activities including pictures, Seminar data posted up on our English web site.

In addition, our vice principal, 3 teachers and 19 students visited ERJHS, NHS, the Philippine Ministry of Education and Quson city hall July 9-13 ,2006.

We had a good time exchanging cultural difference and visiting their class and made the cooperative proposal of 2006 firmly.

4) Cultural experience at our school festival

We presented our students' work about this cooperative project during our school festival, where students played some traditional games from the Philippines and other economies in APEC thereby enhancing their cultural experience.

5) Making new friends through the web

we had 355 e-mails for teachers, 2300 e-mails for students, 70 chats on instant messenger and a few video conferences, which were all tremendously helpful for the overall project.

5. Result of the project and areas for improvement

A. Conclusion

1) Developing online projects or taking the joint class

Teachers got to know how to do the project, while students actively participated in group work and discussions and learned how to solve cooperative tasks through online project which came from the same content from two schools' textbooks. Most important, we conducted the cooperative project with 2 Philippine sister schools and there might be a possibility to have a joint class with any school in APEC.

2) Sharing ICT materials and experience

We created forum for international exchange through our cooperative project and sharing developed data, experience. We could share other successful experience in that field with all over the world. We found a way to lessen potentially the big gap of educational environments between economies and to improve the use of ICT APEC schools.

3) Gaining a better understanding of each economy

We got much better understanding about each economy after we participated in the cooperative projects and events. The cooperative projects and events increased our understanding of each economy through e-mails, calls, and international visits.

Furthermore, we shared the methods of teaching and learning and school curricula with other APEC schools, in an effort to learn how to solve worldwide problems and attain a more global perspective.

4) Experiencing international exchange

We learned about the educational systems of each economy while preparing and conducting the exchange. We also learned how to handle international documents and how to prepare for the international exchange.

5) Necessity of visiting each economy

It is necessary to visit each economy in person to do the online exchange well, but unfortunately we couldn't invite the Philippine students because of a financial difficulty. We could, however just invite the principal and one teacher from our sister schools and our vice principal, 3 teachers and 19 students the Philippines, which were able to visit was very meaningful for both schools.

6) The role and support of IACE and ALCoB

The sharing information community of IACE helped the formation of the model school network and workshops, seminars and forums, which helped with cooperation of the sister schools.

In addition, the technology and software support of ALCoB combine contributed to this project and activities of service groups contributed to the ways how to find international exchange.

B. Suggestion

(1) Short time of preparing model school would be changed

We spent a lot of time finding a partner school and starting the project last May even though our project is an international exchange. We had difficulty understanding different educational systems in foreign economies, so sometimes we had to set up the plan again.

(2) We would like to solve the information shortage about the interchange school.

We had some confusion because of a lack of information about the interchange school and because our school and sister school have the same school schedule. Philippine ICT

infrastructure contributed to this confusion, too. We need to know exact information on our partner school's educational system.

We also need active attitude when interchanging with overseas.

At first, we have to try to have a good relationship with the researchers and be active instead of suggesting and waiting, demand cooperation. Then we can get a result.

(3) We need to offer information through web-site.

It help if each school offer exact information such as students' number, teachers' number and curriculum through school homepage.

(4) supplement of system

We must need proper ICT infrastructure to take online cooperative class. We need to have system to make it possible 1:1 or 1: many video class.

We had a lot of problems in this study. Because we have to find interchanging school and carry out cooperative project by ourselves. But this study is valuable to carry out. Because this study give students opportunity to have broader outlook on life and teachers to carry out ICT global interchange cooperation.

Thank you for your help, officer in IACE, OIC Secretary in Philippine Education Ministry, Mrs. FE A. Hidalgo and ICT coordinator Mr. Jesus L. Juenda, and Mayer of Quezon city, Mr. Feliciano R. Belmonte, Dr. Pernaldo Principle in ERJHS, Ms, Marian A. Bragas and ICT teachers, Dr, Maria Noemi M. Moncada, Mr. Gilore E. Ofrarcia and ICT teachers. and Philippine students.