A Study of Collaborative Online Network and Culture Exchange Project in Taiwan

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Abstract: Dealing with digital learning and information explosion, English plays as a major role in world communication. All trade areas as well as diversified fields emphasize on English proficiency. Students enhance their global vision via English comprehension. Therefore, through digital multimedia students' interacting with other nations on the web is a very important skill in this digital era. The study of this project intends to understand course material while interacting through online web learning. It stimulates students' cultural experience and expands learning fields. The project provides problem solving model and encourages students to try to solve problems by themselves. The project recruits high schools and primary schools to make international contact. Four hundreds teams of parents, teachers, and students involved in a web platform to discuss international issues. The topics can be related to natural resources, human and society, human and self-renunciation, and there are many more multi-cultural learning. Project also intends to do cross-cultural learning exchange, experience sharing, and will submit findings for related educational administrators and web learners for further reference.

Keyword: On-Line Web Learning, Cross Country Culture Exchange Project

1 Introduction

Due to the liberalization of global economy, all trades and professions emphasize on the promotion of English comprehension in order to expand their international markets, and to keep themselves in the same pace with global economic development. To improve the competitiveness of the country, the government has proposed that enhancing students' English comprehension as an important policy. The Ministry of Education suggests the perspective of 'Creative Taiwan, connecting globally', in which 'fostering talents with foreign language abilities' is one of the action plans. Due to the universal availability of the internet and the rapid development of multimedia techniques, e-learning has become an important learning tool. Digital teaching materials produced with multimedia films and pictures provide various and more active content of courses. Meanwhile, there is less restriction on space and time using digital teaching material and that provides a more interactive and convenient learning environment. Therefore, using multimedia digital teaching material on international interactive teaching is a necessary way of learning in this digital era.

The Ministry of Education has provided many resources of learning, such as the teaching resources center, the Six Major Learning Systems, and seeded schools to encourage teachers applying computer into their teaching, and to encourage students using internet. The digital plan of augmenting manpower will bring wireless internet to each school, each city and county. Thus, instructing teachers and students in using online information to connect with the world currently becomes an important issue.

2 Background of Project

E-learning has been developing in recent years. There are many academic organizations using internet as a learning bridge among students to enable them to make use of online resources and to connect the world. Multimedia and interactive e-learning are used to narrow the gap among students, to promote international cooperation, and to implement international exchange. Currently, there are 3 million students and 250,000 high

school and primary school teachers. If we can strengthen the use of internet on teaching, it will be helpful for interactive learning.

3.1 Discussions on Web-Enhanced Project-Based Learning in Connection with the World

Recently there have been teachers trying Project-based learning (PBL) which is different from the traditional teaching method. PBL emphasizes on helping students apply what they have learned into daily life innovatively. PBL is a constructivist approach which provides learners a complex and authentic project in order to have students find subject matter, design questions, draw up action plans, collect information, solve problems, set up policies, complete research process, and present a learning mode of the project. (Hsu, 2001) This learning mode integrates learning of life experience and inter-disciplinary courses.

3.2 Inter-Disciplinary Courses and Problem-Based Learning

Bean[1] pointed that interdisciplinary courses have four features. First, inter-disciplinary courses are based on important issues in real life and thus it is similar to the nature of project-based learning. Second, inter-disciplinary courses apply knowledge of context rather than limited to knowledge of subject matter. It conforms to the feature of project-based learning that it is inter-disciplinary and designed to explore a question which combines contexts in real world. Third, inter-disciplinary courses do research on current issues, not on a subject. Project-based learning also does researches on current social or scientific issues and aims at fostering student's ability in exploration and research. It is not limited to the aim of the courses, either. Fourth, inter-disciplinary courses emphasize on applying knowledge and solving problems which are also one of the key features of project-based learning.

3.3 Discussing Project-Based Learning with Constructivism

Constructivists consider that knowledge is understood by a learner's construction. Students should express the learning results by applying surface features of diversified knowledge. Knowledge and techniques already possessed by a learner may influence on learning something new. Learning cooperatively and learning to interact with communities will help in depth learning[2]. PBL also emphasizes on a learner's construction of knowledge, and thus adopts a learner-centered model. Instructor will not tell the answer but instruct students in exploring questions and trying to solve problems. Learner constructs his/her knowledge by himself/herself in the process of exploring. Products of PBL can be presented with oral presentation, website, and briefing, etc.

3.4 Cognitive Psychology and PBL

Huang & Hsu (2001) pointed that cognitive psychology highlights on learning motivation, fostering students' meta-cognition and ability of self-management which are related to PBL (1). Learning motivation: a learner who has internal motivations attends an activity based on his/her interests. (2). Meta-cognition and self management: Bereiter and Scardamalia[3] indicated that the difference between an expert and a beginner lies in better meta-cognition and ability of self-management an expert possesses. Meta-cognition is the cognitive process and the results of a learner's self-examination. A learner will have more efficient process of learning if he/she knows his/her cognitive process, adjusts his/her learning pace, and adopts remedial measures when facing difficulties. (3). Context: cognitive psychologist place emphasis on the importance of context, considering that learning may be more efficient if the learning system is closer to real life[4]. PBL chooses the important issues around the world and encourages a learner to apply what he/she has learned to make a decision and solve the problems.

3.4.1 PBL and the Internet

Added on the elements of science and technology, PBL is different from the traditional teaching method either on the development of course content, or the way of delivery. Teachers can apply internet technology to create different learning opportunities, obtain learning resources, manage teaching resources, and evaluate students' learning results through internet[5]. Information Technology-Assisted PBL can help students develop diversified skills, enhance research skills, and master diversified evaluation methods, such as self-evaluation, peer evaluation, and learning process files, etc. Furthermore, it can promote common consensus in a community through online discussion board and interaction between peers, instructors, and experts[6]. (Hsu, 2001; Huang & Hsu, 2001)

3.4.2 The Internet Provides Learning Communities Channels for Collecting Distributed Knowledge

Learning communities are formed by learners based on different social relationship, such as schools, clubs, organizations, and neighbors, to provide learners a learning opportunity[7]. In this learning environment, the emergence of knowledge relies on the interaction in the community to integrate professional knowledge possessed by different members. Therefore, Brown[8] indicated it as 'distributed cognition' in a learning community. Learners can share their views on how to solve the problems and reach an agreement to examine and solve the problems collaboratively. The Internet plays an important role as the medium for communication in integrating distributed cognition.

3.4.3 The Internet Provides PBL Functioned with Scaffold Knowledge Integration (SKI)

PBL is used widely in teaching strategies. The typical mode is the Knowledge Integration Environment (KIE) in University of Berkeley. (http://kie.berkeley.edu/KIE.html) [9] pointed that the four points of SKI are: 'identify new goals for learning,' 'make thinking visible,' 'encourage lifelong learning,' and 'provide social support.' These promote learners' ability to solve problems through repeated examinations and correction.

In a word, this project is expected to encourage schools and local communities to share resources, achieve development collaboratively, and enhance the connections between school education and the world. Students from different countries share learning experience through the process of exploring the issues, researching, and designing websites. We would hope to develop this project which can serve as a bridge for children in the world to encourage them care and help each other.

4 Purposes of the Project

This project aims at providing opportunities for students attending international activities under their teachers' supervision. The purposes of it are as followed:

1. To foster juveniles' abilities of attending projects, and promote their competitiveness.
2. To broaden juveniles' views, develop their scientific and humanistic care.
3. To encourage juveniles' interests in international cultures and affairs.
4. To enrich international teaching activities, and develop friendship.
5. To enhance students' ability of communication, and students' global vision.
6. To advance students' communication ability in English.

This project combines digital information and the Internet to instruct students using PBL to search information to progress online teaching and learning.

5 Schedule of the Project

This project is scheduled from August, 2005 for three years in three phases:

1. Starting the project (August, 2005-July, 2006)
   Develop interactive mode of learning online.
   Search for foreign partners.
   Decide purposes and methods.
   Train teachers with action research.
   Learn interactively online.
2. Cooperation Period (August, 2006-July, 2007)
   Advance international exchange. (It holds interactive and non-interactive activities.)
   Encourage teachers to have international exchange.
3. Creation Period (August, 2008-July, 2009)
   Learn collaboratively.
   Attend foreign web-based competitions.

This project is designed because juveniles should be encouraged to care the important issues around the world, to work collaboratively with team members, and to broaden their global views.

6 Contents of the Project

6.1 Purposes

Connect with the international society.

Develop students' ability of project-based learning.

Explore international issues.

Enhance students' abilities of foreign languages.

6.2 Set up the Website

The website is set up as the center of communication. Teams, information, and interactive functions will be provided online, including:

Teaching platform: including courses and members management.

Interactive platform: including interactive texts, emails, international members, and the discussion board.

Web server: providing storage space for members.

6.3 Members

The major members are students from primary schools and high schools in Kaohsiung, as well as those in southern Taiwan. Each teacher instructs 3-5 students. 400 teams are expected to join this program.

6.4 Procedure of the activity (6 months for each session)

a. Organize teams.
b. Search for international partners.
c. Register to attend.
d. Propose the plan, and set the title.
e. Start international activities.
f. Record the process.
g. Write reports.
h. Attend related international competitions. (Optional)
i. Publish results on the website.
j. Invite experts to evaluate the results.
k. Announce outstanding groups and award them.
l. Hold international workshops to share experiences.

6.5 Modes of Activities

a. Titles can be decided freely by each team, either learning subject matter or English.
b. Partners can be searched by each school or assisted by this project.

6.6 Networks

There are four networks:

a. International Education and Resource Network (iEARN)
b. Advanced Joint English Telecommunication (AJET)
c. Asian Student Exchange Program (ASEP)
d. English teaching (such as international online teaching)

6.7 Contents

This project is aimed at building a high-quality online learning environment, integrating learning resources, improving online learning environment, and stimulate teachers' motivation of learning. It is hoped to promote e-learning at domestic schools and to achieve the perspective of 'Creative Taiwan, connecting globally.'

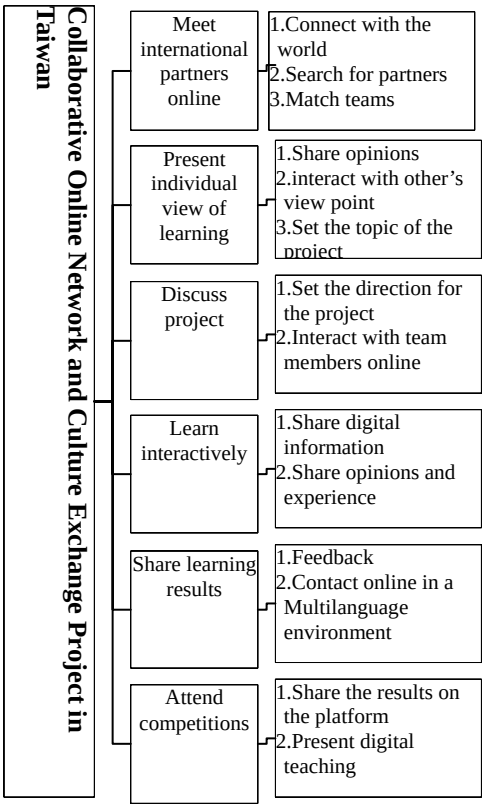

Table 2: the structure of the

7 Members of this Project

This project will be attended by the teachers and students in Department of Applied Foreign Languages in Shu-Te University of Technology.

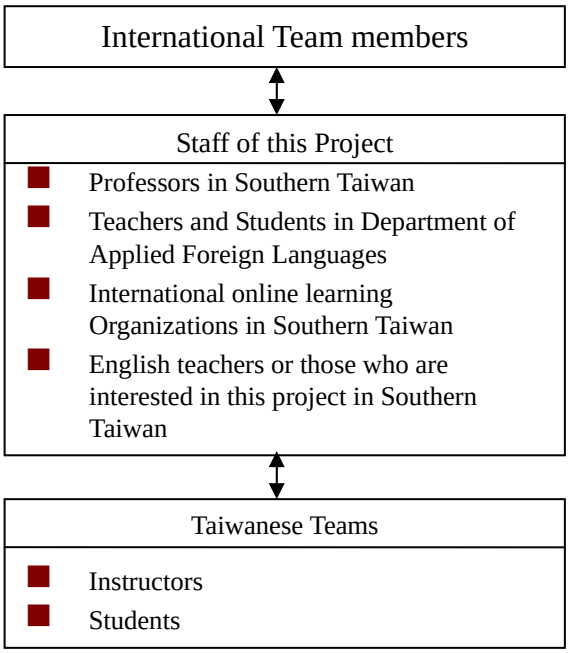

Table 3: Structure of members in this project

8 Expected Benefits

400 teams (around 2,000 students) from 40 countries and 800 teachers are expected to attend this project. It is hoped to achieve the goals as below:

1. Encourage students to learn actively.
2. Broaden students' global vision. Understand diversified cultures.
3. Foster Students' abilities of communication in English.
4. Train students the techniques of doing project-based research.

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