International Experiment Project of Asynchronous Collaborative Learning Method

Aoyama & Asia e-Learning Network Project

with De La Salle University

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1. Proposal Summary

(1) Verification of validity of the asynchronous collaborative-learning in the international environment

(2) Verification of validity of the function of LMS (Learning management system) based on the International Standard in the asynchronous collaborative-learning

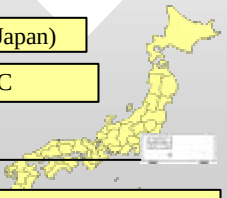
(3) Verification of implement ability of International Standard specifications (SCORM, ISO/SC36/N0043 “Collaborative Technology”) for the asynchronous collaborative-learning

AEN(Philippines)

ITECC

AEN（Japan）

ALIC



Internet/Intranet

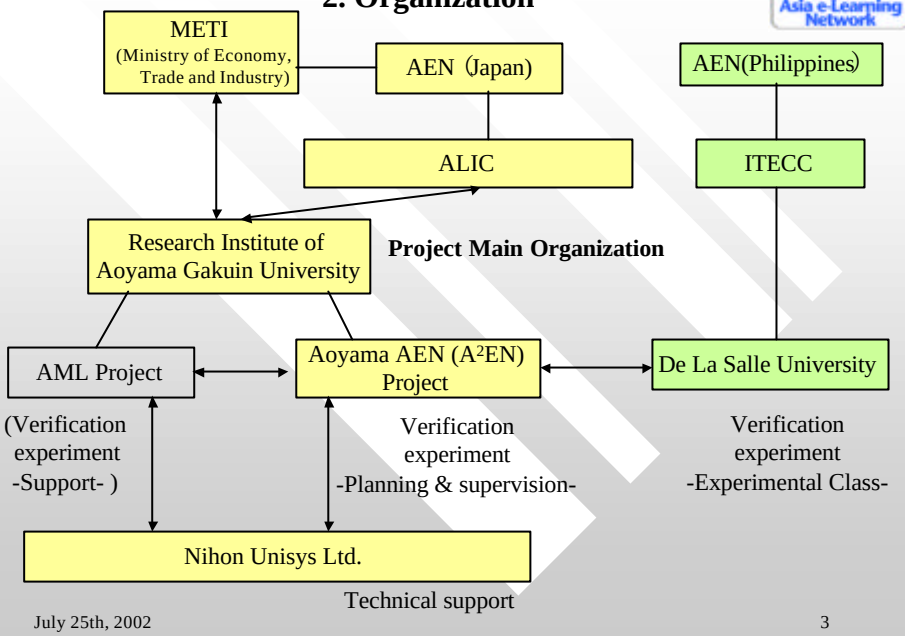
De La Salle University

Universities in Philippines

Aoyama Gakuin University
A²EN Project

Universities in Japan

2. Organization



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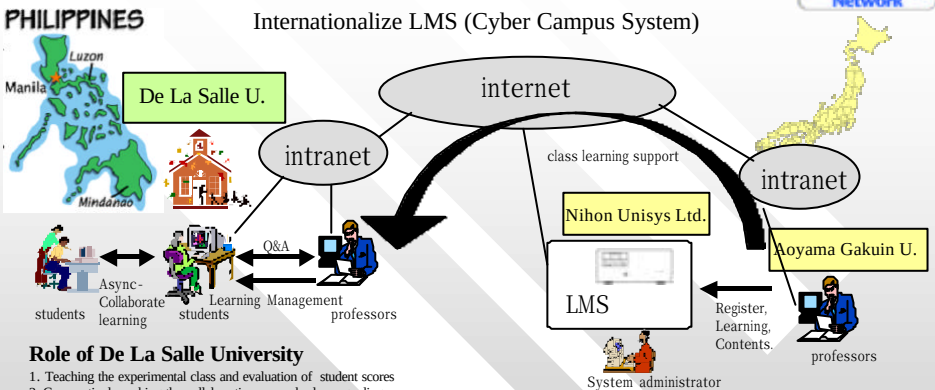
3. Role of the international experiment



Role of De La Salle University

1. Teaching the experimental class and evaluation of student scores
2. Cooperatively making the collaborative research plan regarding the final report of the verification experiment
3. Client Environment
4. Collection data of the experimental class

Role of Nihon Unisys, LTD.

1. Customizing LMS (Cyber Campus System) (Internationalize and customize LMS to build on the SCORM)
2. Arranging environment for the verification environment

Role of Aoyama Gakuin University

1. Developing asynchronous collaborative-learning method
2. Developing evaluation method of e-Learning efficiency (text materials, questionnaire, quizzes and subject reports etc.)
3. Developing and customizing educational software of MRP system with English version.
4. Supervising the verification experiment
5. Management of project activities
6. Editing the final report of this international experiment project

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4. Verification of validity of the asynchronous collaborative-learning in the international environment

(1) Outline of "e-Learning in Production Planning (MRP) Systems" Contents

■Aim■

This course aims at training of the talented people who can practice in manufacturing engineering and production management through "asynchronous collaborative-learning" based on a case study of the theory adapted to Material Requirements Planning (MRP) system. The objectives of this course are to develop necessary knowledge and ability in designing reasonable production planning, inventory management, project management techniques and manufacturing resources planning by taking several factors.

■Outline in the case of MRP systems■

In this course, learners will learn essential knowledge by Web-based self-learning contents through e-Learning system (Cyber Campus System). Additionally, learners would master more practical and efficient techniques related with the production planning (MRP) system, by using developed educational software under the asynchronous collaborative-learning environment.
Figure 1 shows the relationship between production planning and capacity planning used in different stages of manufacturing industries. However, with the limitation of several times lesson to cover main MRP sub-systems as shown in Figure1, it is impossible to utilize commercially available software due to the long hours needed to study the operation manual. Therefore, the unique educational software to support e-Learning in production planning (MRP) system is created.

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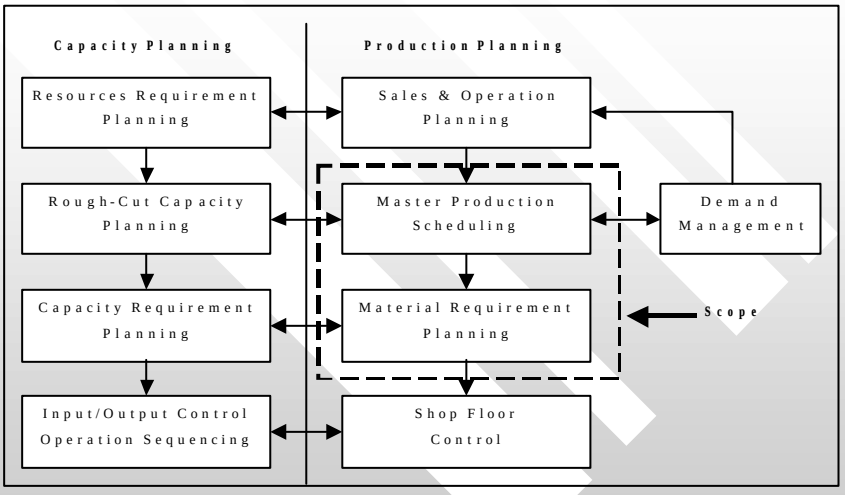

Figure 1 Production planning framework used in manufacturing industries

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■Scope of Verification Experiment regarding Experimental Class■

The scope of this experimental class is treated with following three topics in Figure1.

1) Inventory management and lot sizing rules,
2) Master production schedule regarding MRP, and
3)Procedure of material requirement planning.

■Personnel Training■

This course aims at training the talented people who can practice in manufacturing industries by practicing various operating production management both in related theories and in practical MRP processes through a case study.

At the first year, we choose the contents of " the production planning and inventory management" by utilizing MRP system in this proposal. After learning business processes of the manufacturing industries at this first experimental class, we will try to develop the educational methods in the field of IT Management as the next phase. We are convinced that the education of IT managers becomes more important than the education of IT engineers also in the Asian areas like Japan.

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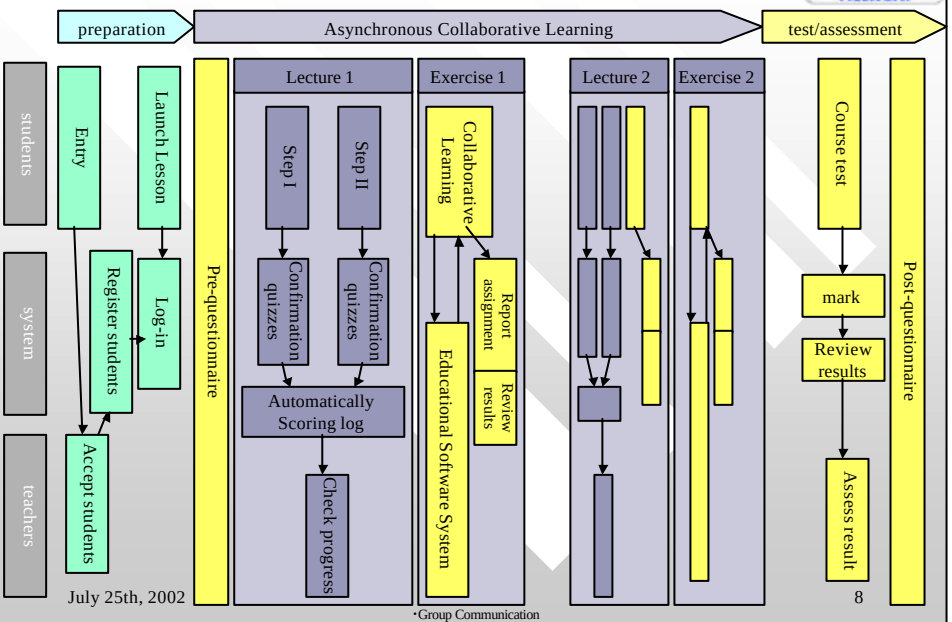
(2)Asynchronous Collaborative-Learning



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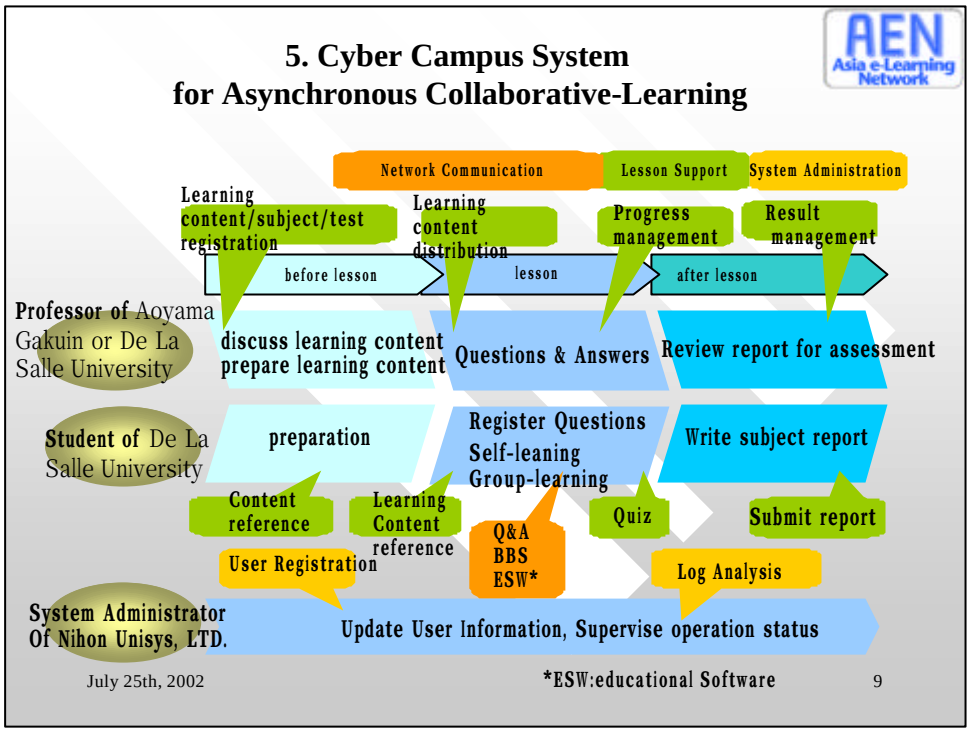
・Group Communication by Using BBS


5. Cyber Campus System
for Asynchronous Collaborative-Learning
Network Communication
Lesson Support
System Administration
Learning content/subject/test registration
Learning content distribution
Progress management
Result management
before lesson
lesson
after lesson
Professor of Aoyama Gakuin or De La Salle University
discuss learning content
prepare learning content
Questions & Answers
Review report for assessment
Student of De La Salle University
preparation
Register Questions
Self-leaning
Group-learning
Write subject report
Content reference
Learning Content reference
Q&A
BBS
ESW*
Quiz
Submit report
User Registration
Log Analysis
System Administrator Of Nihon Unisys, LTD.
Update User Information, Supervise operation status
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*ESW:educational Software
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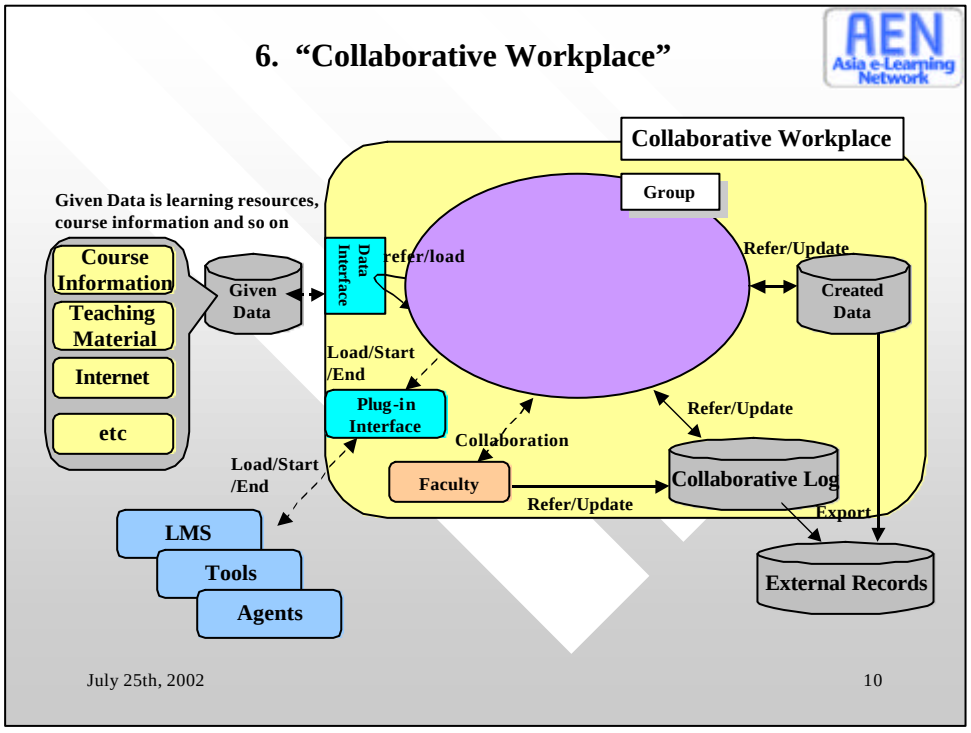
6. "Collaborative Workplace"
Collaborative Workplace
Group
Given Data is learning resources, course information and so on
Course Information
Teaching Material
Internet
etc
Given Data
Data Interface
refer/load
Refer/Update
Created Data
Load/Start /End
Plug-in Interface
Refer/Update
Collaboration
Load/Start /End
Faculty
Collaborative Log
Refer/Update
Export
LMS
Tools
Agents
External Records
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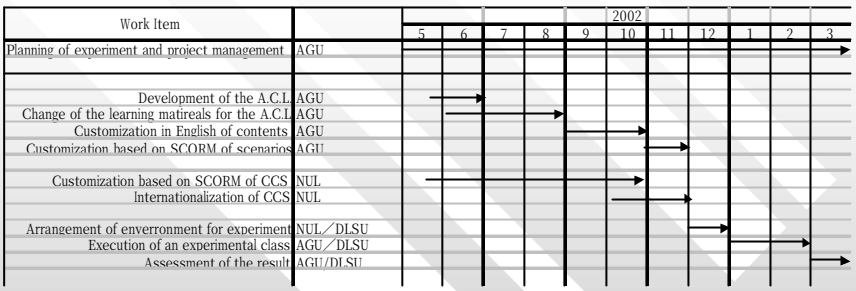
7. Schedule



AGU:Aoyama Gakuin Univ.
DLSU:De La Salle Univ.
A.C.L.:Asynchronous Collaborative-Learning
CCS:Cyber Campus System

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