Collaborations among e-Learning Professionals for Quality Assurance

Kinnya TAMAKI, Ph.D.
Yoshiko GODA, Ph.D.

Research Center for e-Learning Professional Competency (eLPCO)

Aoyama Gakuin University

Outline:

1 Overview of eLPCO's e-Learning Professionals' Cultivation program

2 Quality Assurance of eLPCO program

    (1) Processes

        (1) Curriculum Development

        (2) Course Development based on Instructional Design Process

        (3) Implementation: Learner Support by Instructor, Mentor, and Learning System Producer

    (2) Products

        (1) Evaluation and Feedback of Courses

3 Establishment of Qualification System in Japan

4 Future Plans for International Education and Other Projects at eLPCO

eLPCO

1. Overview of eLPCO's e-Learning Professionals' Cultivation program

Organization: Research Institute and eLPCO

eLPCO
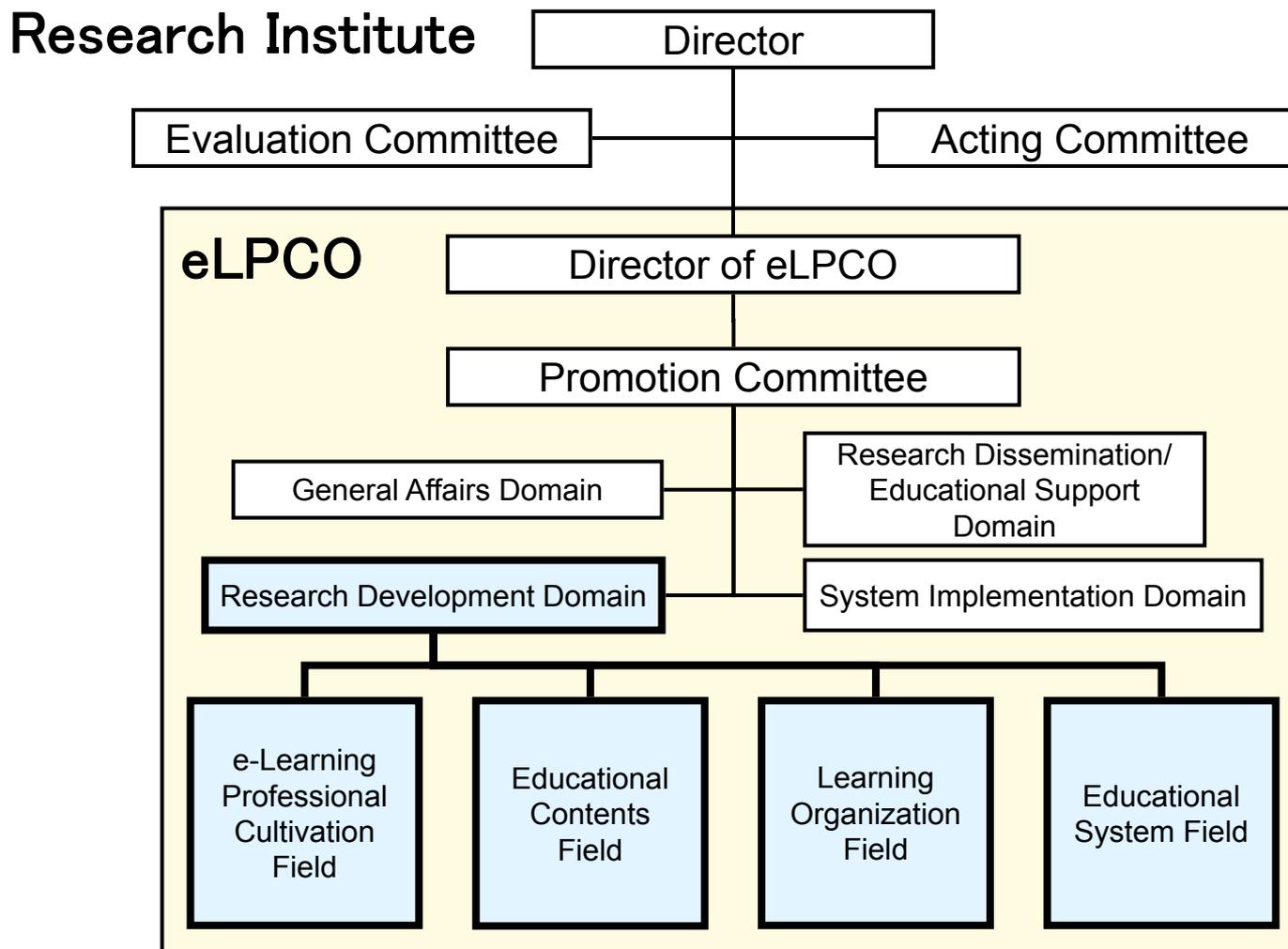
"e-Learning Professional Competency Program"

- Grant of 21st Century Good Practice (GP) Program by Ministry of Education, Culture, Sports, and Technology in Japan (2005-2007)

- Started in April, 2006

- Curriculum: 26 courses

- 5 Professionals' Courses

- Enrollments:

More than 400 students at AGU (2006-)

- 31 students received professional certificates.

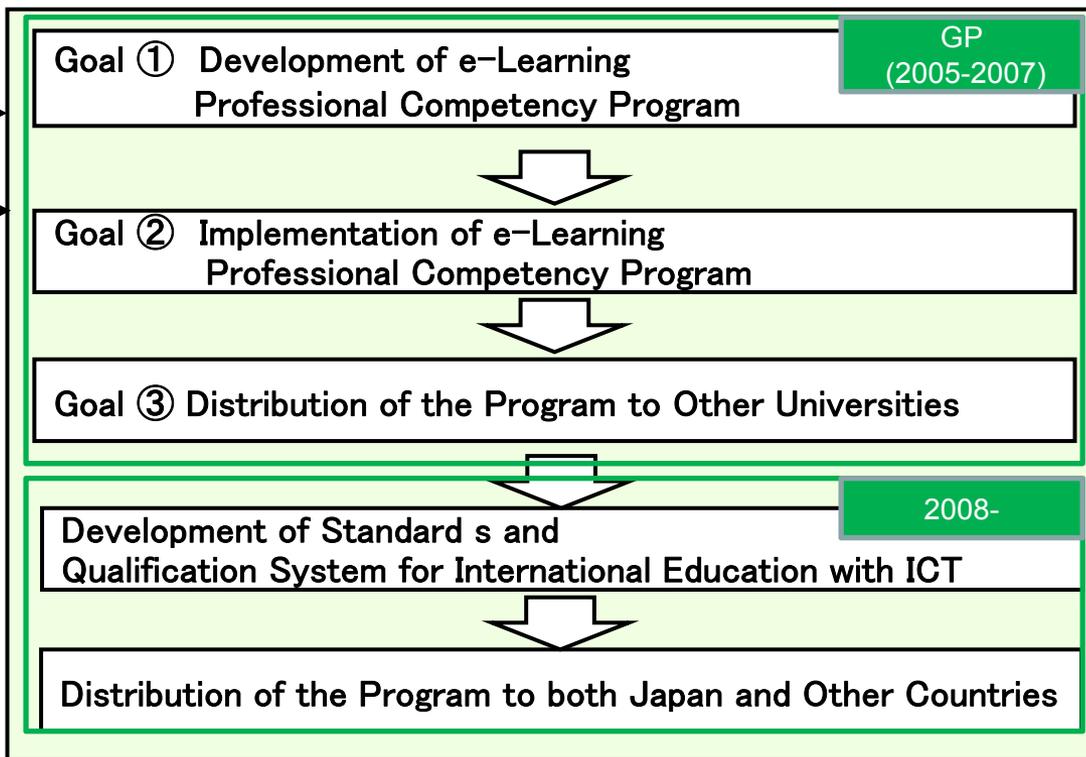- 47 business learners (2008 -) received Basic certificates.

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Five e-Learning Professionals

Professional	Job Description
Instructional Designer	To design an e-Learning course based on analysis with instructional design theories and to evaluate the course
Contents Specialist	To create and develop effective teaching materials reflecting the teaching plan designed by the instructional designer
Instructor	Teaching specialist to facilitate students' learning and evaluate students' achievement
Mentor	To support students from both academic and emotional aspects and to motivate students to accomplish the learning goals
Learning System Producer	To be responsible for management of a whole learning system including improvement of the system and to support instructors and mentors for a successful implementation of a course

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2. Quality Assurance of eLPCO program
(1) Processes

2.1.1 Curriculum Development

- Reconstruction of Competency & Skill Set over the e-Learning professionals for course and curriculum development

- Comparison of the eLPCO's skill sets to other criteria of outside organizations
  - The skill set for the Basic Course Group matches eLC's Competency map for Basic courses.

Full Skill Set over e-Learning Professionals

Curriculum

e Learning Professional Competency Program

	#	Course	Instructional Designer	Contents Specialist	Instructor	Mentor	Learning System Producer
Basic	1	eLPCO_ Introduction to e-Learning	Mandatory	Mandatory	Mandatory	Mandatory	Mandatory
	2	eLPCO_ Introduction to Instructional Design	Mandatory	Mandatory	Mandatory	Mandatory	Mandatory
	3	eLPCO_ IT Fundamental for Educational System	Mandatory	Mandatory	Mandatory	Mandatory	Mandatory
General Knowledge	4	eLPCO_ Learning Science and Educational Methods	Elective	Elective	Elective	Elective	Elective
	5	eLPCO_ Cognitive Learning	Elective	Elective	Elective	Elective	Elective
	6	eLPCO_ Cognitive and Language	Elective	Elective	Elective	Elective	Elective
	7	eLPCO_ Cross-Cultural Literacy	Elective	Elective	Elective	Elective	Elective
	8	eLPCO_ Media-Communication	Elective	Elective	Elective	Elective	Elective
	9	eLPCO_ Information Service	Elective	Elective	Elective	Elective	Elective
	10	eLPCO_ Information and Media	Elective	Elective	Elective	Elective	Elective
	11	eLPCO_ Learning Environment Design Literacy	Elective	Elective	Elective	Elective	Elective
Professional Skills	12	eLPCO_ Strategies for Internationalization and IT for e-Learning	Semi-Mandatory	Mandatory			Mandatory
	13	eLPCO_ Mobile Communication		Elective		Elective	Elective
	14	eLPCO_ Mobile Learning	Semi-Mandatory		Semi-Mandatory	Semi-Mandatory	
	15	eLPCO_ Computer Education & Learning Theories	Elective		Mandatory		Elective
	16	eLPCO_ Legal Issues of e-Learning	Mandatory	Mandatory	Mandatory	Mandatory	Mandatory
Practices	17	eLPCO_ Practices in Course Design for e-Learning	Mandatory	Semi-Mandatory			
	18	eLPCO_ Practices in Contents Development	Semi-Mandatory	Mandatory	Semi-Mandatory		
	19	eLPCO_ Practices in Course Implementation & Learner Support			Mandatory	Mandatory	Semi-Mandatory
	20	eLPCO_ Practices in On-Line Research and Analysis	Mandatory		Semi-Mandatory		Semi-Mandatory
	21	eLPCO_e Learning System Management Practices		Semi-Mandatory		Semi-Mandatory	Mandatory
	22	eLPCO_ Collaborative Learning Practices	Semi-Mandatory		Semi-Mandatory	Semi-Mandatory	Semi-Mandatory
Graduate	23	eLPCO_ e-Learning Project Management Practices	Elective	Elective	Elective		Elective
	24	eLPCO_ Course Evaluation Practices	Elective		Elective	Elective	Elective
	25	eLPCO_ Human Resources Cultivation and Organization Learning			Elective		Elective
	26	eLPCO_ International Collaboration Communication	Elective	Elective	Elective		
		Condition for Comprehensive Exam	Mandatory : 6 Semi-Man. : 2 Elective : 1	Mandatory : 6 Semi-Man. : 2 Elective : 1	Mandatory : 6 Semi-Man. : 2 Elective : 1	Mandatory : 5 Semi-Man. : 3 Elective : 1	Mandatory : 6 Semi-Man. : 2 Elective : 1

Note. Mandatory   Semi-Mandatory   Elective

Collaborations among 5 e-Learning Professionals for a Successful e-Learning Course

- Learning Objectives based on Competency & Skill Set
- Collaboration of Professionals through Instructional Design Process
- Formative & Summative Evaluation
  - Feedback and Improvement

Instructional Designer (IDer)				IDer
Contents Specialist	Contents Specialist		
Instructor			Instructor
	Mentor		Mentor
	Learning System Producer (LSP)		LSP
Analysis	Design	Development	Implementation	Evaluation

Instructional Design Process

| Main Practice | Sub Practice |
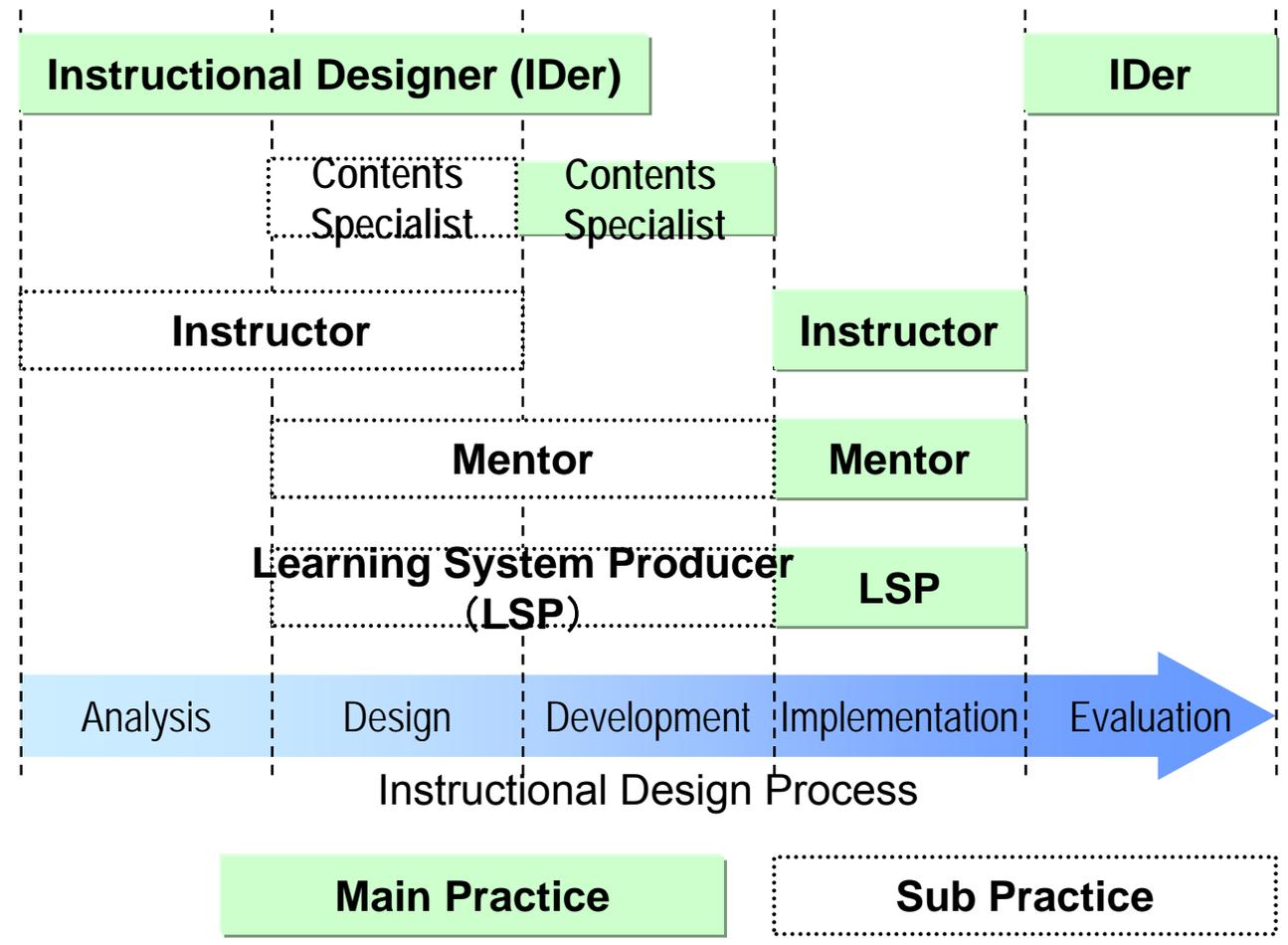
Roles of eLPCO Staff

Staff	Instructional Designer	Mentor	Instructor	Contents Specialist	Learning System Producer
A	○	△	○	○	○
B	○	○	○	○	○
C	○	○	—	○	—
D	○	△	○	△	—
E	—	△	○	—	—
F	○	—	○	○	○

2.1.2 Course Development based on Instructional Design Process (1/5)

Analyze learners and learning environments and determine what to accomplish as goals

Instructional Designer (IDer)				IDer
Contents Specialist	Contents Specialist			
Instructor			Instructor	
	Mentor		Mentor	
Learning System Producer (LSP)			LSP	
Analysis	Design	Development	Implementation	Evaluation

Instructional Design Process

| Main Practice | Sub Practice |
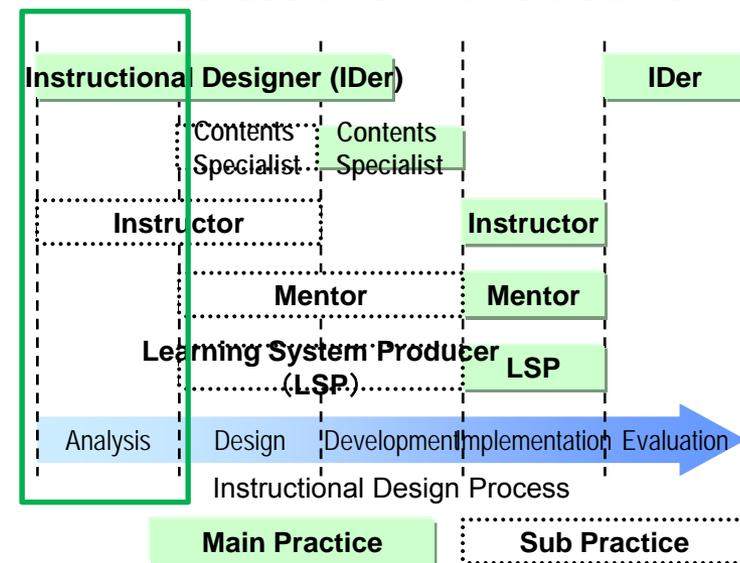
- Needs Analysis: Examine necessity of a course
- Learner Analysis: Clarify starting point of a course
- Learning Objectives Analysis: Decide learning contents
- Technical Analysis: Check available technology and approaches
- Cost Analysis: Analyze time and cost for a course development
- Environmental Analysis: Analyze the context and environment for applications of knowledge and skills after the course

2.1.2 Course Development based on Instructional Design Process (2/5)

Set concrete learning goals and design the course (including teaching materials, learning activities, roles of e-learning professionals, etc.)

Instructional Designer (IDer)				**IDer**
	Contents Specialist	Contents Specialist		
Instructor			**Instructor**	
	Mentor		**Mentor**	
Learning System Producer (LSP)			**LSP**	
Analysis	Design	Development	Implementation	Evaluation

Instructional Design Process

Main Practice   **Sub Practice**
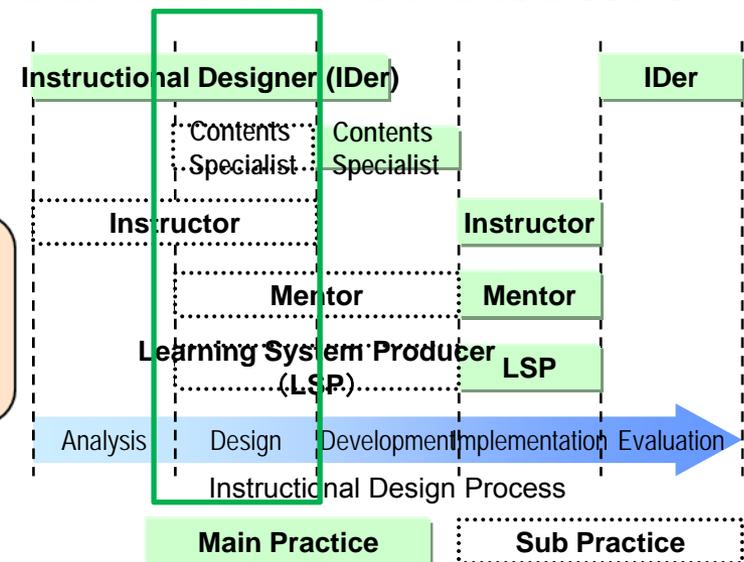
- Set assessable learning goals and assessments to check learners' achievement

- Design instructional methods and learning activities

- Design ways to motivate learners

2.1.2 Course Development based on Instructional Design Process (3/5)

Develop teaching materials and digital contents based on the storyboards selecting suitable media and considering educational layout

	Instructional Designer (IDer)			IDer
		Contents Specialist	Contents Specialist	
	Instructor			Instructor
		Mentor		Mentor
	Learning System Producer (LSP)			LSP
Analysis	Design	Development	Implementation	Evaluation

Instructional Design Process

Main Practice	Sub Practice
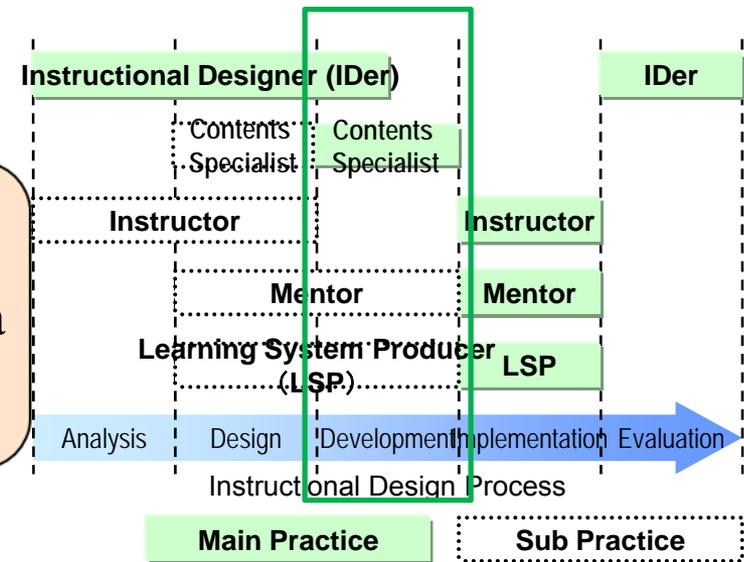
- Select suitable media and technology

- Create materials and construct multimedia contents

- Combine media in educationally effective manner

2.1.2 Course Development based on Instructional Design Process (4/5)

Implement the course and support the learners

- Learning System Producer: Manage course-implementation with LMS

- Instructor: Teach with digital materials and facilitate learning activities on the LMS

- Mentor: Support learners to complete the course

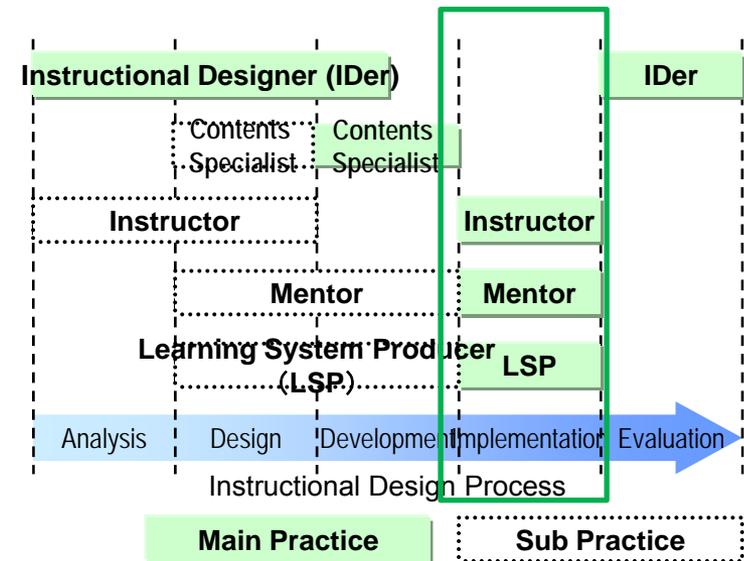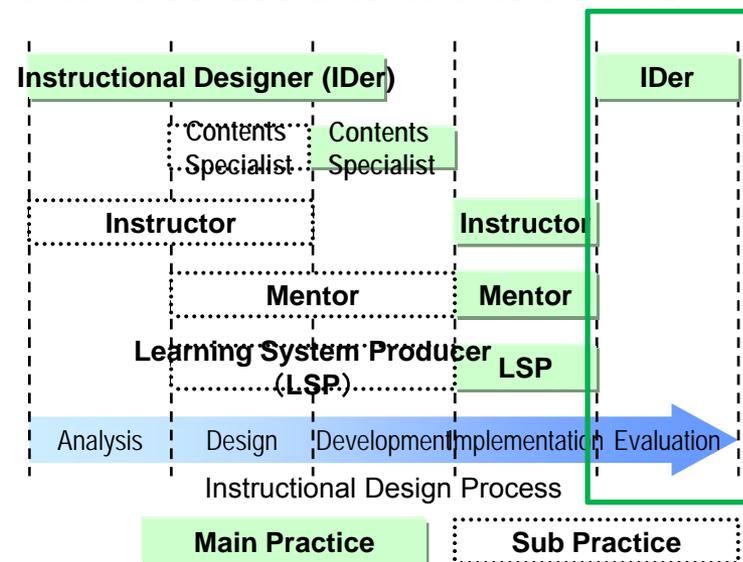# 2.1.2 Course Development based on Instructional Design Process (5/5)

- Give feedback on summative and formative evaluation
-Promote practitioners' reflection for the course improvement

Instructional Designer (IDer)

IDer

Contents Specialist

Contents Specialist

Instructor

Instructor

Mentor

Mentor

Learning System Producer (LSP)

LSP

| Analysis | Design | Development | Implementation | Evaluation |

Instructional Design Process

Main Practice

Sub Practice

- Evaluators who are not practitioners objectively evaluate the course and give feedback to the practitioners

- Conduct PDCA (Plan-Do-Check-Act) cycles for e-learning courses

- Evaluation Research Group: 9 members (7 external evaluation members)

2. Quality Assurance of eLPCO program
(2) Products

eLPCO

Dr. Marshall's e-Learning Maturity Model (eMM) as a Guideline
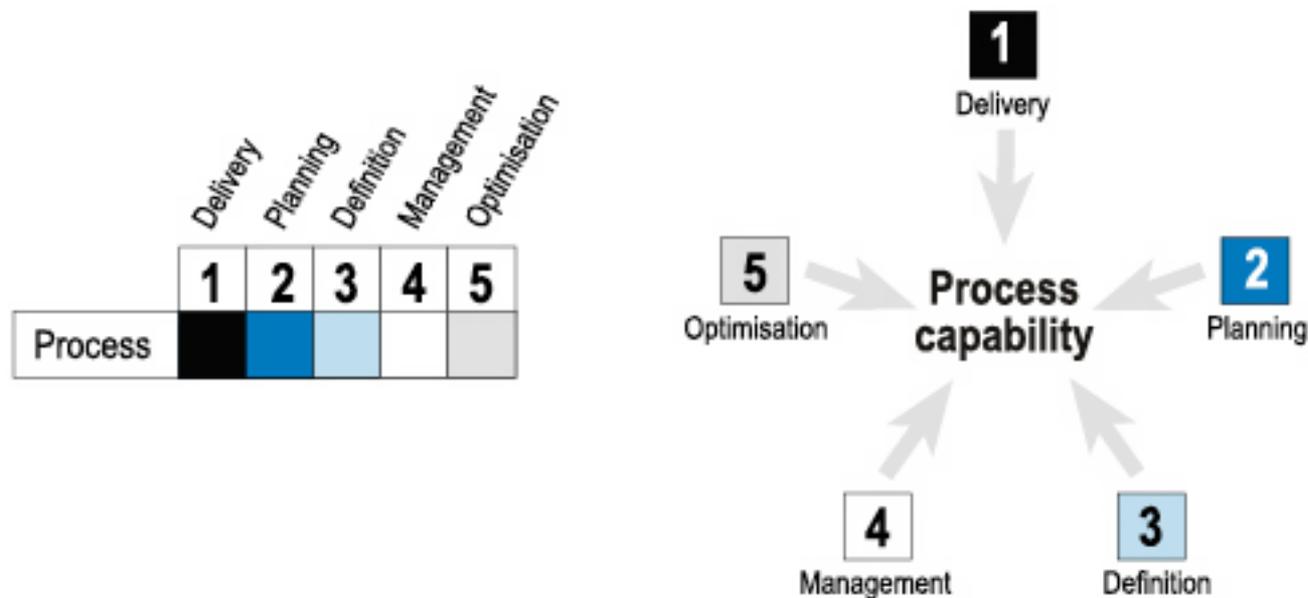
eMM Process Dimensions

Source:http://www.utdc.vuw.ac.nz/research/emm/index.shtml

eLPCO

For Quality Improvement

- Information Management and Sharing among eLPCO's e-Learning professionals and managers

- Review, Evaluation, Feedback -> Improvement
  - LSP：LMS
  - Contents Specialist ：Teaching Materials
  - IDer、Instructor, Mentor: Class and its lessons

Criteria for Program Quality Evaluation

Based on AEN's and Sustainable e-Learning Project in B to C Market

① Organization
- e-Learning System Implementation
  - Learner-Support
  - Teacher-Support
  - Completion Rate Improvement
  - Satisfaction for the Program Organization

② Evaluation of Program Evaluation
- Evaluation Activities
- Evaluation Index
- Organization
- Schedule

③ Learning Effects
- Learning Effects Evaluation
  - Design Process of Learning Effect Evaluation
  - Development of Instruments
  - Learning Effects' Level
  - Learning Effects' Feedback
  - Self-Efficacy
  - Completion Rate

④ Learning Activities
- Frequency of Log-In
- Access to Teaching Materials
- Communication and Interaction
  - Satisfaction to Learning and Educational Activities
  - Course Design
  - Development of Contents
  - Ratio of e-Learning and Face-to-Face Instruction
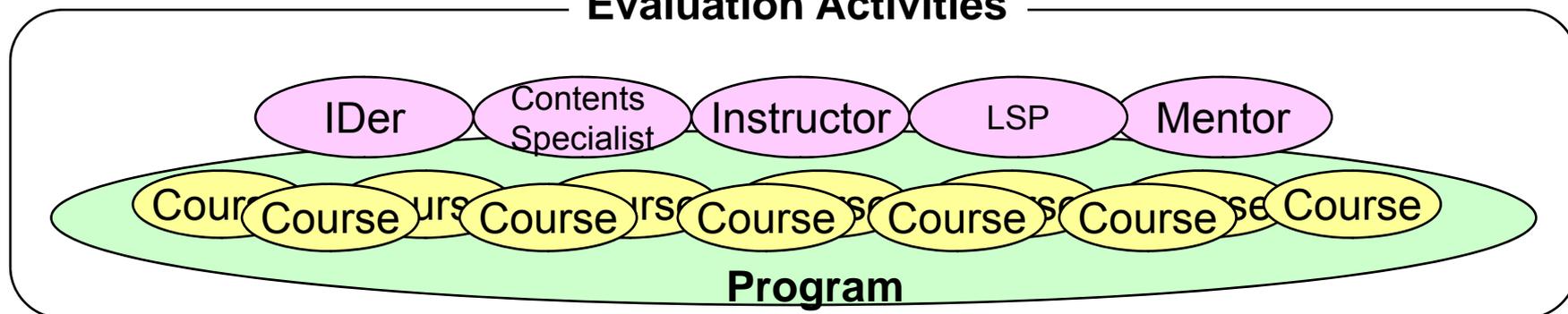 - Satisfaction

4-Level Evaluation Frames

Level 1. Course Evaluation

Level 2. Evaluation using Data-Mining Methods

Level 3. Evaluation for Each Professional's Competencies

Level 4. Evaluation for TF13's Evaluation Activities

Evaluation Activities

IDer | Contents Specialist | Instructor | LSP | Mentor

Course | Course | Course | Course | Course | Course | Course | Course

Program

Course Evaluation Procedures

③**Create an Improvement Plan（Select feasible ones from the proposal）**

External Evaluator

②Propose an Improvement Plan based on
Data, Log and Reflections of Professionals as a evaluation report

Instructional Designer

①

Instructor

Contents Specialist

Mentor

①

①

Practitioners' Reflection

①

①

Output

④**Check if course improvements were done along the plan**
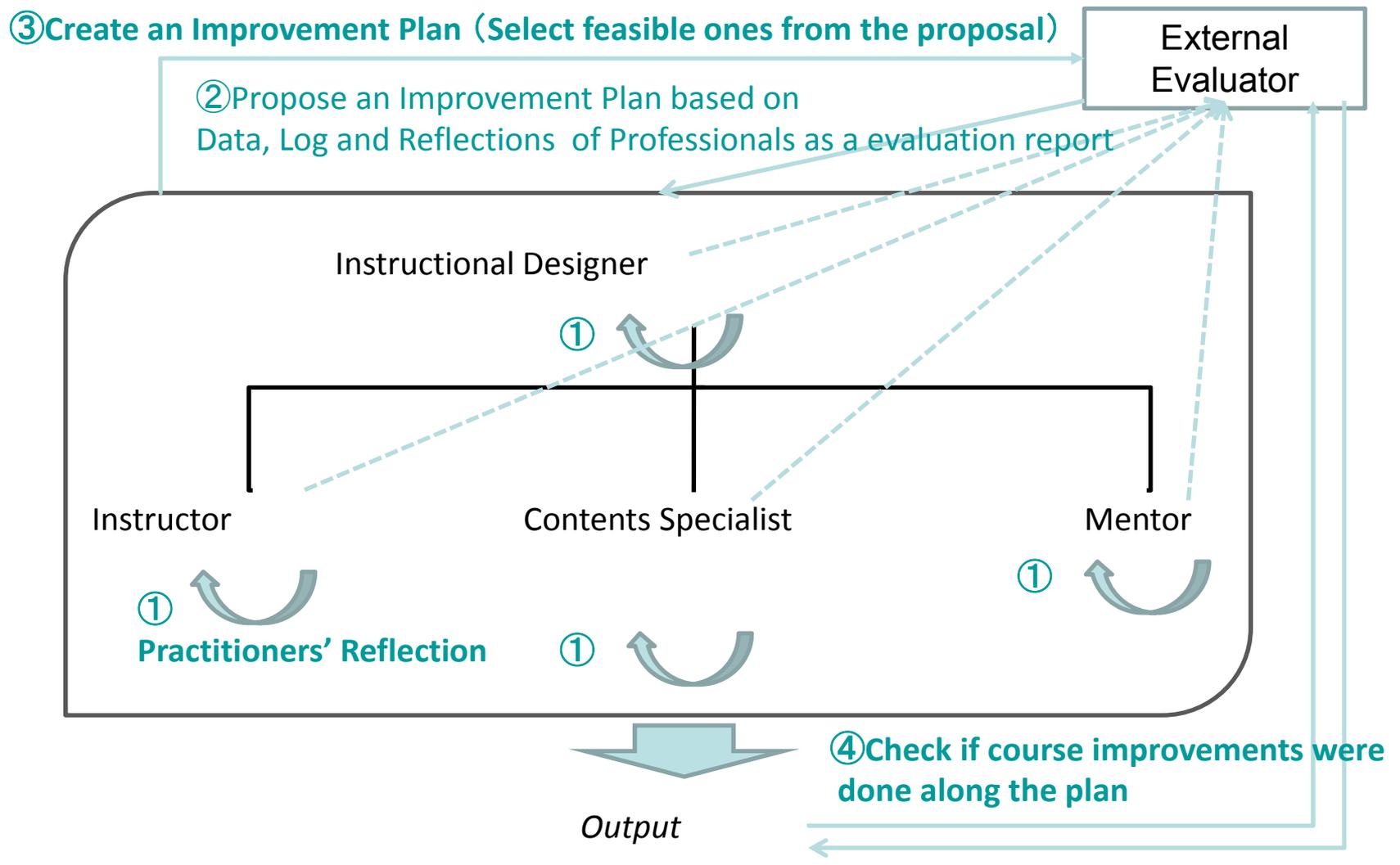
Evaluation for Course Improvements

End of Term 1	①Organize the Data and Log (including Formative Evaluation Report)	
	②Practitioners : Reflection Form Priori to Course Evaluation [Reflection]	Adopt practitioners' reflection to evaluate a course
	③Evaluators：Experience the Course before Evaluation	Make the evaluation activity more course-oriented
	↓	
	④Evaluators： Write a Course Evaluation Report including a course-improvement proposal table referring to ①, ②, ③ and documents in previous terms	The course-improvement proposal gives more concrete ambiguous suggestions for course improvements.
	↓	
	⑤IDer：Share the Course Evaluation Report (④) with other practitioners	
	↓	
	⑥IDer：Create feasible course-improvement plan among the practitioners	Consult with time and cost and make feasible plan
	↓	
End of Term 2	⑦Evaluators：Interview IDer on the actual course-improvement during the term2	Check actual improvements referring to the course-improvement plan made at the end of term1.

Each course Evaluation: Formative and Summative evaluation

1. Direct learning effects of course through Learners' achievements
2. System of Learning Support and Implementation
3. Learning Activities
4. Design of Course and its teaching materials (contents)

→ Create "Diagnoses of Course" with Course-Improvement Plan Proposal
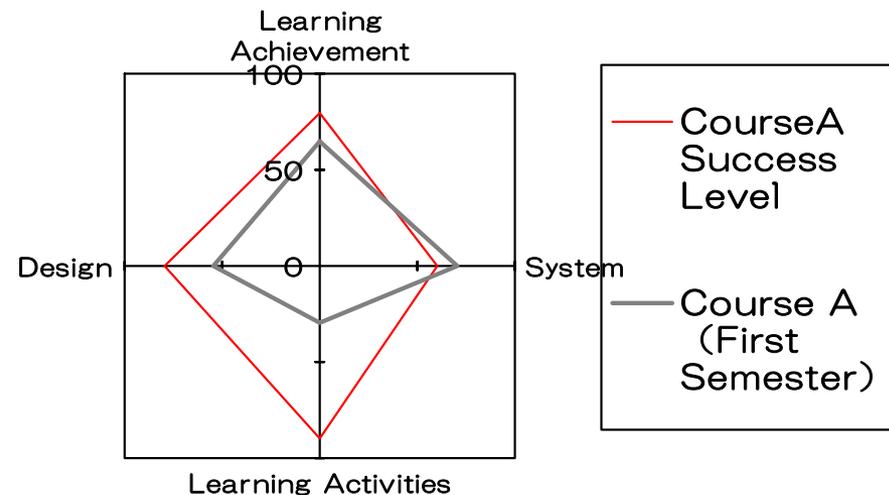
Diagnoses of Course

3. Establishment of Qualification System in Japan

AGU-eLPCO's Certifications (2007-)

	Students # who Passed Comprehensive Exam				
Professionals	1st	2nd	3rd	4th	
Instructional Designer	3	1	1	0	5
Contents Specialist	3	1	0	0	4
Instructor	1	3	2	3	9
Mentor	1	3	2	3	9
Learning System Producer	0	1	1	2	4
	8	9	6	8	31

eLPCO

Cooperation with Other Organizations

- e-Learning Professionals Certification Issued by e-Learning Consortium (eLC)
  - Fall 2007
  - Basic, Regular, Master Certifications
  - First Step:
    - Basic Certification: eLPCO's three basic classes and a professional skill class
    - Tutor Certification: eLPCO's Mentor Certification and Instructor Certification

e-Learning Consortium (eLC) in Japan

- a specified non-profit organization (http://www.elc.or.jp/index.html)

- established in 2001.

- About 100 full and partial members

- Three main missions:

    (1) Collection of e-Learning-related information and Research on e-Learning

    (2) Development and Implementation of educational program and training

    (3) Dissemination of e-Learning system and contents' standards.

eLC's e-Learning Professional (eLP) Qualification System

- started in 2007

- Currently, e-Learning courses for "e-Learning Basic" and "eLP Expert" certificates are available

- new courses for "eLP Manager" and "eLP Consultant" certifications in 2009
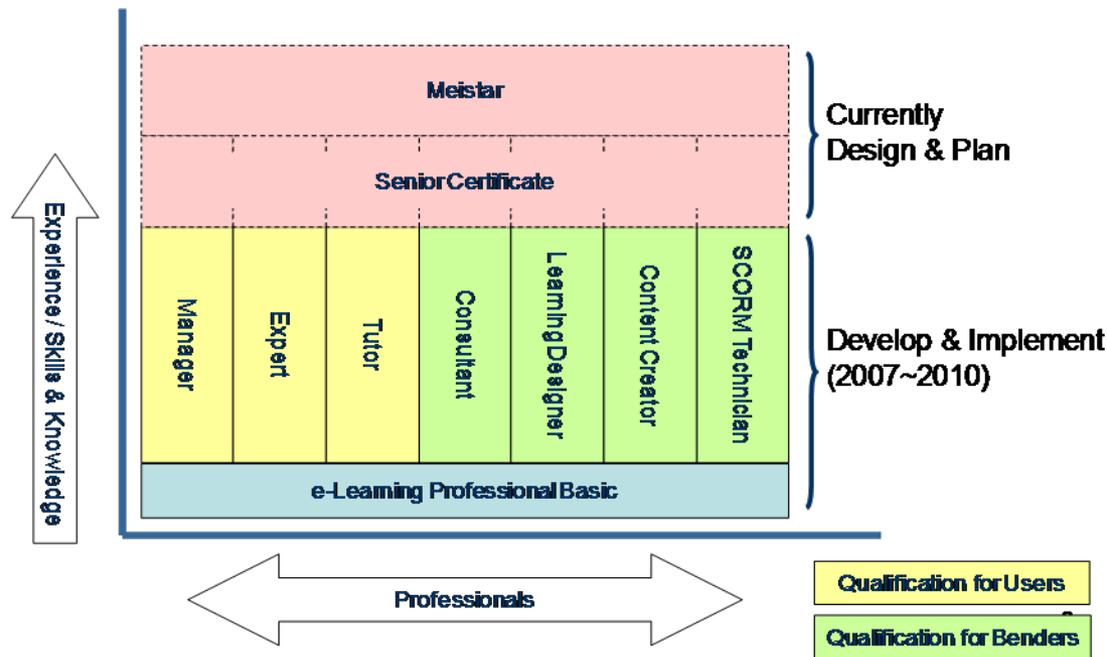
Corresponding Qualifications b/w AGU and eLC

Aoyama Gakuin University			e-Learning Consortium Qualification	
University-Registered Accredited Course (Face-to-Face Inst. + SRL)		Non-Credit Course (SRL)		
Course	Department	Course		
			Basic	Tutor
Introduction to e-Learning	Business	eLPCO_Introduction to e-Learning	Basic	Tutor
Introduction to Instructional Design	Education	eLPCO_Introduction to Instructional Design		
IT Fundamental for Educational System	Education	eLPCO_IT Fundamental for Educational System		
Legal Issues of e-Learning	Business	eLPCO_Legal Issues of e-Learning		
Practice of e-Learning Course Implementaion and Learner Support	Education	eLPCO_Practice of e-Learning Course Implementaion and Learner Support		

eLPCO

Category	No.	Course	Instructional Designer	Contents Specialist	Instructor	Mentor	Learning System Producer
Basic	1	eLPCO_ Introduction to e-Learning					
	2	eLPCO_ Introduction to Instructional Design					
	3	eLPCO_ IT Fundamental for Educational System					
General Knowledge	4	eLPCO_ Learning Science and Educational Methods					
	5	eLPCO_ Cognitive Learning					
	6	eLPCO_ Cognitive and Language					
	7	eLPCO_ Cross-Cultural Literacy					
	8	eLPCO_ Media-Communication					
	9	eLPCO_ Information Service					
	10	eLPCO_ Information and Media					
	11	eLPCO_ Learning Environment Design Literacy					
Professional Skills	12	eLPCO_ Strategies for Internationalization and IT for e-Learning					
	13	eLPCO_ Mobile Communication					
	14	eLPCO_ Mobile Learning					
	15	eLPCO_ Computer Education & Learning Theories					
	16	eLPCO_ Legal Issues of e-Learning					
Practices	17	eLPCO_ Practices in Course Design for e-Learning					
	18	eLPCO_ Practices in Contents Development					
	19	eLPCO_ Practices in Course Implementation & Leaner Support					
	20	eLPCO_ Practices in On-Line Research and Analysis					
	21	eLPCO_e Learning System Management Practices					
	22	eLPCO_ Collaborative Learning Practices					
Graduate	23	eLPCO_ e-Learning Project Management Practices					
	24	eLPCO_ Course Evaluation Practices					
	25	eLPCO_ Human Resources Cultivation and Organization Learning					
	26	eLPCO_ International Collaboration Communication					
		Condition for Comprehensive Exam	Mandatory : 6 Semi-Man. : 2 Elective : 1	Mandatory : 6 Semi-Man. : 2 Elective : 1	Mandatory : 6 Semi-Man. : 2 Elective : 1	Mandatory : 5 Semi-Man. : 3 Elective : 1	Mandatory : 6 Semi-Man. : 2 Elective : 1

Callouts:

eLC Qualification "eLP-Basic" Basic 4 Courses

eLC Qualification "eLP-Tutor" Basic 4 Courses ＋ "Practice of Course Implementation & Learner Support"
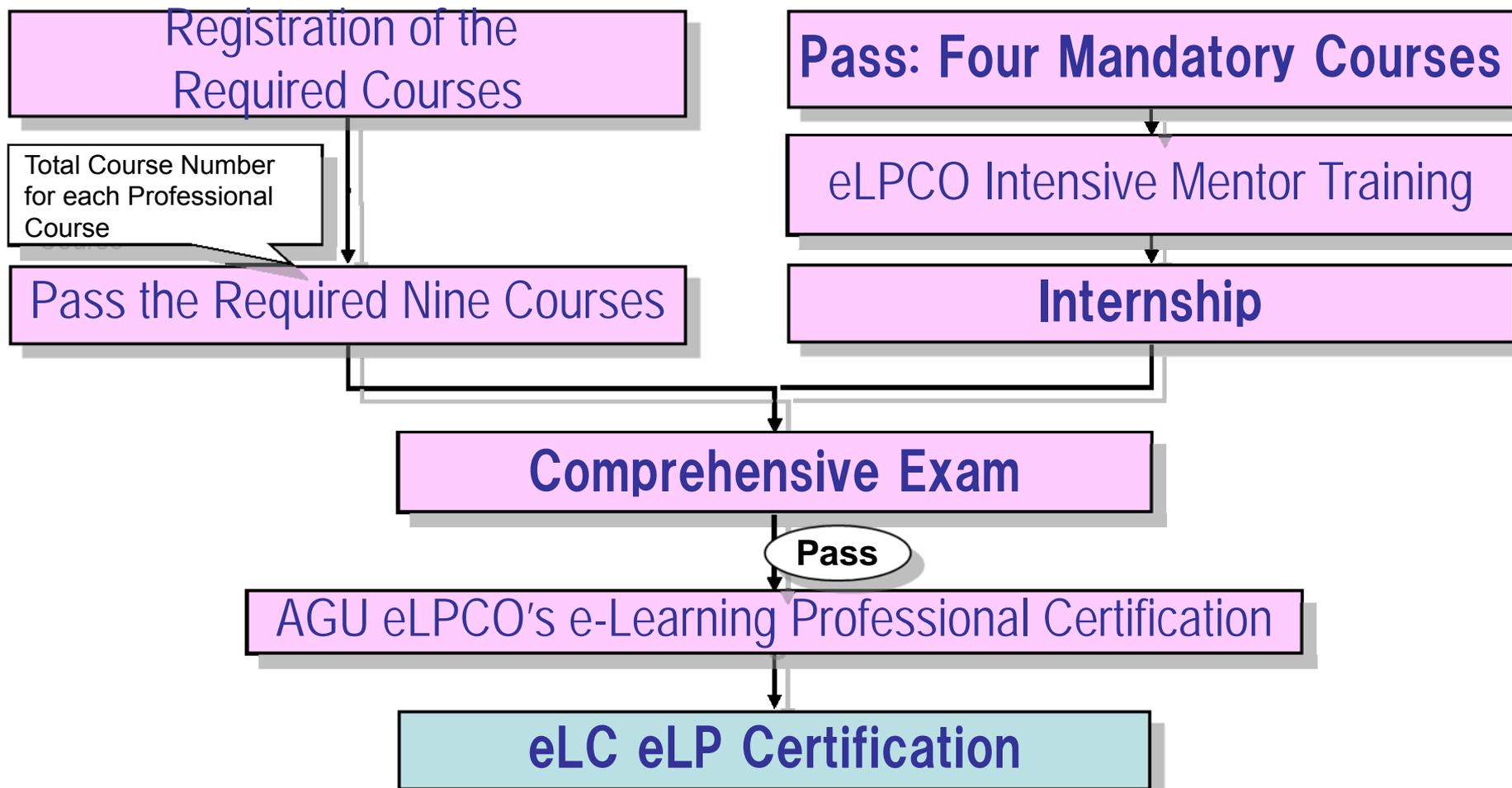
Note.   Mandatory   Semi-Mandatory   Elective

Process of Registration for eLC's Certification and AGU eLPCO's Certifications

Registration of the Required Courses

Total Course Number for each Professional Course

Pass the Required Nine Courses

Pass: Four Mandatory Courses

eLPCO Intensive Mentor Training

Internship

Comprehensive Exam

Pass

AGU eLPCO's e-Learning Professional Certification

eLC eLP Certification

4. Future Plans and Other Projects at eLPCO

eLPCO

Future Plans for International Education

- Establish standard qualification system for e-Learning and ICT-used education professionals who are able to provide quality education internationally

- Develop e-Learning and ICT-used education professionals cultivating program based on the standards

- Provide the program and implement trainings via e-learning system internationally

eLPCO

National Educational Technology Standards (NETS•T) for Teachers, 2008

1. Facilitate and Inspire Student Learning and Creativity

2. Design and Develop Digital-Age Learning Experiences and Assessments

3. Model Digital-Age Work and Learning

4. Promote and Model Digital Citizenship and Responsibility

   Teachers understand local and global societal issues and responsibilities in an evolving digital culture and exhibit legal and ethical

5. Engage in Professional Growth and Leadership

Source: International Society for Technology in Education, http://www.iste.org/Content/NavigationMenu/NETS/ForTeachers/2008Standards/NETS_T_Standards_Final.pdf

Research and Development of Program for International Education with ICT
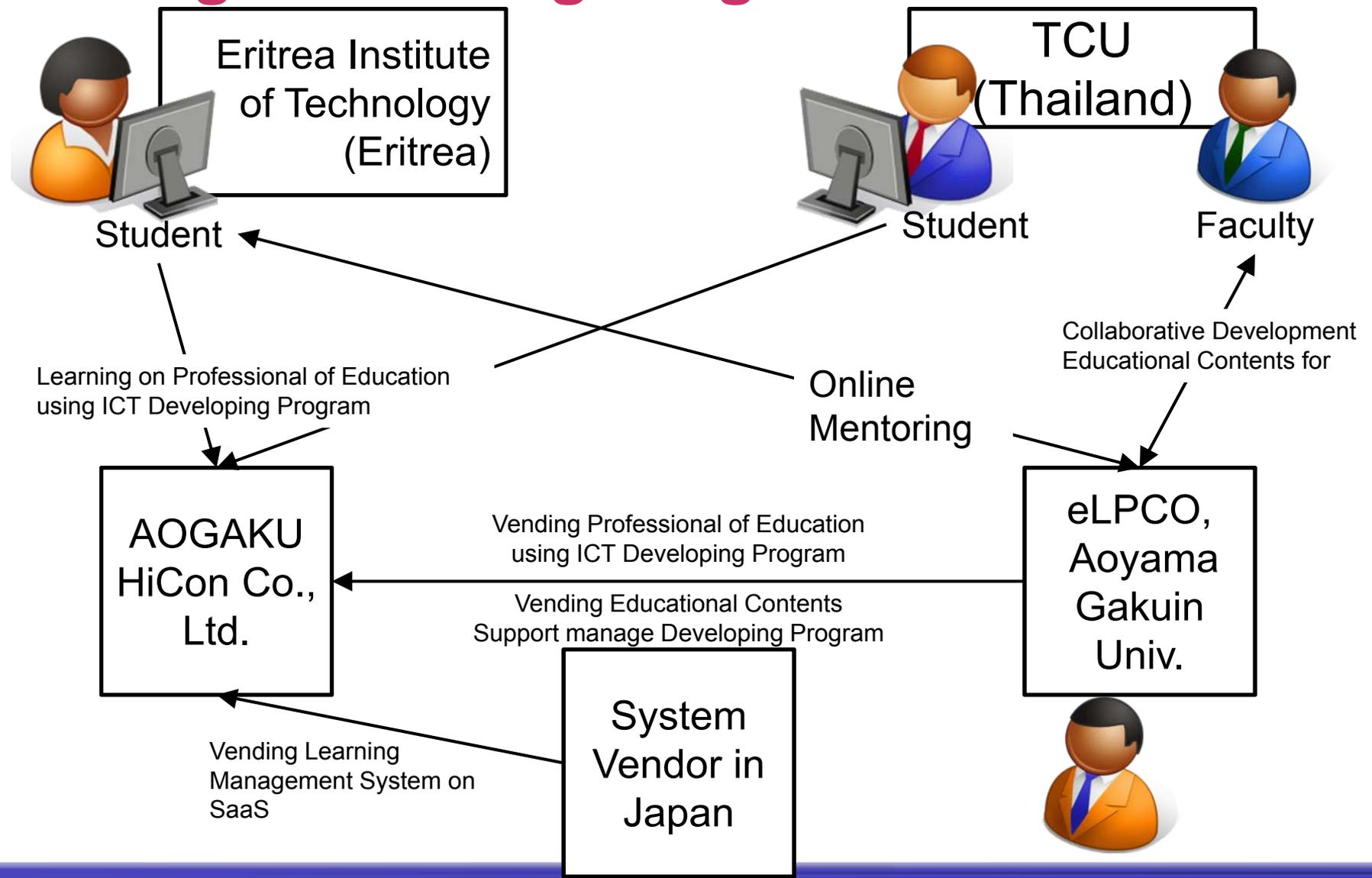
Research Fields

Literacy	•ICT/Technology •Language •Legal Issues
Communi-cation	•Skills •Attitudes: Respect Diversity
Pedagogy	•Autonomous Learner •Educational Technology •Learning Environemnt

One of Possible Research Approaches

Emic	Etic
•Studies Behavior from within the system •Examines only one culture •Structure discovered by the analyst •Criteria are relative to internal characteristics	•Studies behavior from a position outside the system •Examines many cultures, comparing them •Structure created by the analyst •Criteria are considered absolute or universal

Source: Berry, J. W., Poortinga, Y. H, Segall, M. H., & Dasen, P. R. (2002). Cross-cultural psychology: Research and application. Cambridge.

Collaboration Plan for International e-Learning Cultivating Program

Eritrea Institute of Technology (Eritrea)

Student

TCU (Thailand)

Student

Faculty

Learning on Professional of Education using ICT Developing Program

Online Mentoring

Collaborative Development Educational Contents for

AOGAKU HiCon Co., Ltd.

Vending Professional of Education using ICT Developing Program

Vending Educational Contents Support manage Developing Program

eLPCO, Aoyama Gakuin Univ.

System Vendor in Japan

Vending Learning Management System on SaaS

Other Projects at eLPCO

- Redevelopment of e-Learning Professional Cultivating Program for Work-Place Training

- Research on Competency-Portfolio
    - Grant of "Cyber-Campus Project" by Ministry of Education, Culture, Sports, Science and Technology in Japan
    "Development of Practical Human Resource Cultivating Program and Support System for Competency Development and Assurance"