

Au-CIDE Plan: A Proposed Model for Assumption University's Internet-Based Distance Education System

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Abstract

In compliance with the Ministry of Education's Guidelines and Criteria for Offering Degree Programs via Distance Education requiring the distance education provider to set up its own Distance Education System, the Technology Division, College of Internet Distance Education, Assumption University developed the Au-CIDE Plan for Assumption University's Internet-based Distance Education System to be used as the master plan for offering Internet-based distance education to both home-based and class-based students.

This paper presents the system's major components, major steps, and factors for the implementation of the Au-CIDE Plan for Internet-Based Distance Education System.

Au-CIDE Plan comprises nine(9) major steps: (1) Identify Social Needs; (2) Define Graduate Characteristics; (3) Develop IDE Curriculum; (4) Produce IDE Packages; (5) Create IDE Environment; (6) Deliver IDE Courses; (7) Provide Practical and Profession Experiences; (8) Conduct IDE Evaluation; and (9) Conduct Quality Assurances.

1. Background Information

CIDE of Internet Distance Education (CIDE) was established as an autonomous ICT-based distance and open education institution in Assumption University on April 25, 2002 to provide an eLearning system of distance education using the Internet as the core media.

CIDE upholds the philosophy of continuing life-long and life-along education in providing and expanding multiple opportunities for the general public to earn certificates or degrees and at the same time upgrading the quality of life and work and helping them foster the development and promotion of knowledge and experiences through flexible Internet-based distance learning, e-research, and e-practices in order to achieve self-realization and reach the utmost level of intellectual to be the foundation for personal, social, and national development.

CIDE adheres to the mission: *"The Provision of World Wide Distance Education via the Internet at One-stop Service for Anyone, from Anywhere and at Anytime."*

To ensure effective implementation of CIDE's teaching and learning via eLearning, the Internet-based Distance Education System, called AU-CIDE Plan was developed pending the approval of CIDE Executive Board and Assumption University's University Council.

In compliance with various requirements in the Regulation of the College of Internet Education (2004), i.e. Article 7 on Article 23 (3) and Article 25 (7), it deems necessary to develop CIDE's own Internet-based Distance Education System to be called AU-CIDE Plan.

The AU-CIDE Plan for the Internet-Based Distance Education was developed on certain underlying principles in identifying and arranging major and subcomponents into

logical steps as illustrated in the AU-CIDE systems model.

2. Major Components

From the above-mentioned learning principles and technological characters, CIDE identified components for its AU-CIDE Plan for Internet Distance Education System.

2.1 Philosophy and Mission - CIDE sets its own philosophy and mission as the foremost directives and guidelines in implementation of its Internet distance learning programs.

2.2 Awareness of Problems, Social Needs, and Expectation of Graduates - Before launching any certificate or degree program, CIDE conducted the survey to identify problems, needs, and expectation of graduates. The obtained data is used as a frame work for developing the curriculum of each program of study.

2.3 Curriculum Development- CIDE then designs the curriculum for the proposed certificate or degree program based on the collected data from the survey of problems, needs, and expected graduate characteristics and make use of the most recent curriculum development approach such as cooperative education and DACUM.

Cooperative education programs help determine the weaving of theories and practices. Students make use of internship in an organization, agreed upon between the business or industrial firms and CIDE to transfer the knowledge and experiences into practices.

DACUM (develop a curriculum) is a curriculum development approach jointly prepared by both users and academic. The users, prospective employers, tell their academic counterparts specific knowledge, attitude and skills needed for the business and industry. The users work closely with the faculty members in the process of

designing the curriculum until they come up with a desirable set of curriculum.

The two sit together to design the curriculum which helps produce the kind of graduate to work in the business instantly without the needs for retraining.

2.4 Course Production Facilities - In order to produce high quality eLearning packages for all the courses, CIDE needs to establish a fully equipped production facilities such as sound and image studios, computer graphic facilities, and production personnel. The production of courseware follows the guidelines provided in CIDE's content management system (CMS).

2.5 Course Delivery and Students Services- In delivery courseware to the students, CIDE needs to develop its own learning management system (LMS) and student management system (SMS). CIDE needs to establish student servicing system comprising service center, regional and local study centers, along with guideline to provide effective, up to date, services to the students.

2.6 Environment - In eLearning platform, both physical and virtual environment are needed to provide the most effective access to knowledge bases or knowledge center.

For physical environment, the *Srisakdi Charmonman IT Building* at Bangna Campus of Assumption University, which is one of the most well furnished IT facilities in Southeast Asia, has prepared 2,000 computers, knowledge centers, and self-access centers for certain groups of students while they are on campus.

Virtual environment is provided via eLearning both on-line and off-line to provide self-pace learning on the parts of the students.

2.7 Practical and Professional Experiences- It is vital for students enrolled

in all certificate and degree programs to have direct, hand-on experiences in the field of their specialization. CIDE developed its own practical and professional experience system to ensure that the students, after graduation, are well equipped with knowledge and know-how. Cooperative education system is adopted to seek cooperation of public and private sectors for students' practical and professional experiences through on-the-job training, study visits, or understudy schemes.

2.8 Evaluation.—Evaluation of CIDE students is under supervision of CIDE staff. While formative evaluation may be allowed on-line, summative evaluation (final examinations and project work) must be administered at a designated Examination Center under the close supervision of authorized personnel. No home-based examination is allowed!

2.9 Quality Assurance.—The QA is a built-in process and needs to be carried out at every component and step of the AU-CIDE Plan. These include quality auditing, quality assessment, and quality control.

3. Systems Model

The systems model comprises logical steps and the systems flow-chart.

3.1 The Logical Steps

The AU-CIDE Plan comprises nine major steps:

Step 1.0 Identify Social Needs

The needs may be identified in three categories: national needs, felt needs, and individual needs.

National needs are identified from the needs for human resources in various areas as evidenced in the present national social and economic development plans, and government policies.

Felt needs are those expressed by private and public sectors for manpower in certain areas, such as medical personnel, ICT

specialists, technological and scientific personnel, and honest politicians. CIDE may take these felt needs for developing a certificate or degree programs.

Survey needs carried out in the areas where no clear evidence is available, especially in social science. The results of the survey provide CIDE with the information on the type of knowledge and skills that are needed or how many students are expected to enroll in the program.

Step 2.0 Define Graduate Characteristics

Characteristics of graduates are not easily taken for granted. The world changes, especially technological and scientific advancement, and so do its people to cope with these changes. In the ICT world, characteristics of new hardware need to be defined. Details of various components must be designed before production. After each type of hardware is manufactured, the operation system, set of drivers and application programs need to be developed to make the new hardware work properly.

Similarly for each program of study, the desired characteristics of graduates need to be defined before a curriculum is developed. The curriculum, defined as the stream of knowledge and experiences, specifies the details of what to be learned (knowledge/content or subject matters, cognitive, affective, and skills); what to be done (practical and professional experiences), what means to be involved (instructional media and facilities), and what outcomes are expected (modes of evaluation: pretest, formative, and formative). All these are needed for producing the graduate with desirable characteristics. Without defining the expected characteristics of graduates, an institution will end up producing the graduates who do not fit in the labor market and will not be able to perform the required tasks and unable to adapt to the changing world.

CIDE takes it very serious that for each certificate and degree program, the characteristics of the graduates are well defined before the curriculum is developed and offered to the public.

Step 2.0 Develop IDE Curriculum

In order to educate the students to have the desirable characteristics as defined in Step 2.0, the curriculum must be developed to embrace two dimensions: content-based and experience-based.

Content-based curriculum provides foundations, principles and theories, for the program of study.

Experienced-based curriculum provides platforms for the student to get involved in acquiring desired experiences both in physical and virtual environment.

Step 3.0 Produce IDE Packages

Each course is produced by the Course Team and Media Production Team into distance learning packages:

3.1 E-Learning Courseware.- E-Learning courseware is the core medium in CIDE distance system to be produced in the form of web-based for on-line delivery supplemented by off-line media such as audio and video CD/DVD, and video-conferencing;

3.2 Print-Media Packages.- Print-media are used as supplementary media that consist of self-learning comprehensive texts, study guidelines, source books, and encyclopedia;

3.3 Tutorial Packages.- Tutorial packages consist of tutorial manuals for tutors, AV presentations, course bulletin, and other practical work required to be performed in groups and in laboratories.

Step 4.0 Create IDE Environment

Internet distance education (IDE) packages only work well in specially

designed environment both physical or real environment and virtual environment.

4.1 Physical Environment.- Physical environment is created for both face-to-face in the classrooms and study centers through lecturing, practical work, and laboratories and self-directed learning at home or working place through distance learning;

4.2 Virtual Environment.- Virtual environment is created via computer-based situation via on-screen interactive instruction from CAI, web-based via the Internet or Intranet, and virtual laboratories.

Step 6.0 Delivery IDE Courses

IDE courses, in the forms of IDE packages, are delivered through three channels: eLearning-based, class-based, and print-based.

eLearning-based packages, or courseware are delivered via the Internet or Intranet and other on-line components such as email, telephone, and facsimile and the combination of off-line media such as CD/DVD, radio/TV and satellite broadcast and videoconferencing.

Class-based packages or tutorial packages are delivered by instructors or tutors at the face-to-face lecture or tutorial sessions.

Print-based packages are delivered via postal services or directly handed to students while at the CIDE headquarters or study centers.

Step 7.0 Provide Practical and Profession Experiences

Practical and professional experiences are vital parts of all CIDE programs of studies.

7.1 Practical Experiences.-Practical activities embrace self learning activities (SLA) and experience-enhancing activities (EEA).

While SLA are interwoven in eLearning or printed distance learning text at the end of every learning modules, the EEA are designed to be performed through virtual settings such as virtual laboratories, simulations, and, where absolutely necessary, real situations.

7.2 Professional experiences.-Professional experiences are provided partly through simulated situations, but the students must engage in an on-site, real situation experiences. CIDE, through the cooperative schemes with various organizations, public and private, provides on-the-job training or internship for all students during the last two semesters before graduation.

7.3 Intensive Seminar or Workshops.-In addition, before graduation, each student must attend a 4-6 day residential intensive workshop or seminars held at the SCIT building at Assumption University's Bangna Campus or at one of CIDE's regional center established throughout the country and outside Thailand. CIDE will make agreements with partner institutions in America, Asia, Australia, and Europe to establish at least one National Education Center (NEC) in each country.

Details of practical and professional experiences are provided in CIDE's official announcements and manuals.

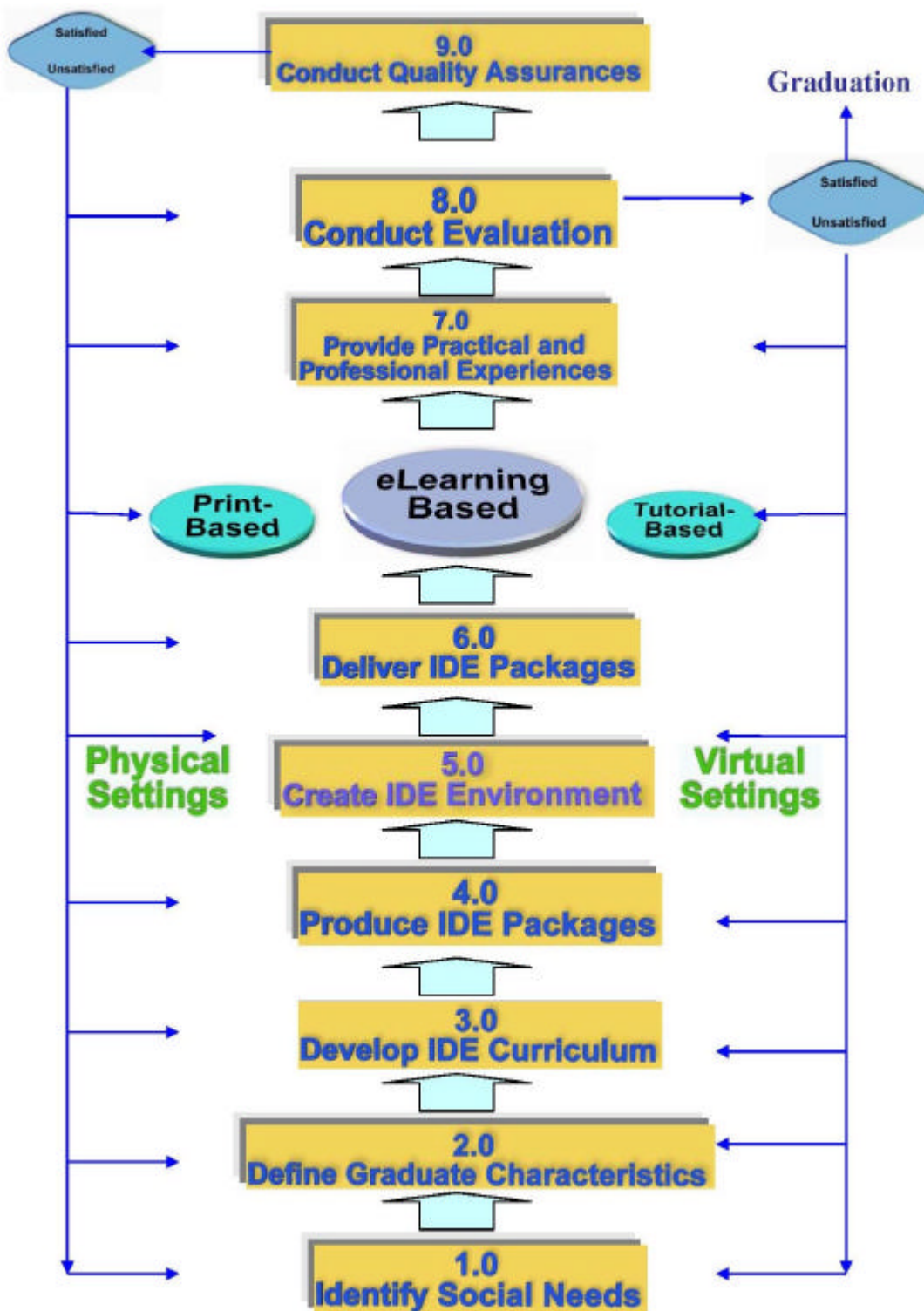
Step 8.0 Conduct IDE Evaluation

Evaluation of the Internet-based distance education covers two dimensions: the evaluation of IDE system and the evaluation of student's learning achievement.

8.1 Evaluation of IDE system.- The evaluation of IDE system is a continuous string of actions to assess all major components of the system, i.e. component of input (CI), component of process (CP) and component of output (CO). The evaluation begins at the time the IDE system is implemented, i.e. evaluation of IDE curriculum, quality of IDE media and resources, the delivery of knowledge and experience, and quality of the graduates and their performances in the labor forces.

8.2 Evaluation of Student Learning Achievement.- The ultimate goal of IDE is to ensure that the student behavior has changed satisfactorily according to the set standard in cognitive, affective and skill domains. The evaluation of student learning achievement is carried out in full cycle of pre-study evaluation, formative evaluation, and summative evaluation.

A Systems Model for AU-CIDE Plan for Internet-Based Distance Education System



Step 9.0 Conduct Quality Assurances

Quality auditing, assessment, and control are implemented under CIDE's QA system at macro and micro level.

At the macro level, CIDE is under Assumption University's QA management committee.

At the College level, CIDE, in compliances with Article 56 of the CIDE Charter, has developed its own Quality Assurance System to main the educational standard comprising the internal and external quality assurance based on the international standard.

At the course level, the QA is overseen by the Course Team in maintaining the quality of subject matter, courseware and IDE media, course delivery, student services, and evaluation.

Criteria and measures for educational quality assurance shall be specified in the Quality Assurance Regulations.

3.2 The Systems Model

The systems model for AU-CIDE Plan is presented on the following page.

4. Factors for the Success of AU-CIDE Plan

The success of AU-CIDE Plan depends upon the following factors:

4.1 The commitment of the Management in the areas of infrastructure, personnel, and resources:

In terms of infrastructure, it is quite obvious the Assumption University and the CIDE executive Board are totally committed to the eLearning system as evidenced by the establishment of the most well furnished SCIT building at the Bangna Campus.

In terms of personnel, AU-CIDE also seeks the services of experienced personnel in the field of eLearning and academic content. Technical personnel and instructional designers, however, need to be developed to cope with the needs of the AU-

CIDE Plan for course planning, production, delivery, and evaluation.

The AU may invest as and advance funding for the operation of CIDE, which in turn will need to be a self-sustainable organization and return the resources to the AU in due time.

4.2 The quality of the sub-systems supporting the AU-CIDE Plan.

The sub-systems supporting the AU-CIDE Plan are (1) Curriculum development system; (2) eLearning Courseware production system; (3) eLearning Delivery system; (4) eLearning environment system at the Headquarters, regional and local study centers; and (5) eLearning evaluation. All these sub-systems must also be well designed by concerned centers and schools to ensure the most practical and effective operation of each system.

4.3 Personnel Commitment.

While the Management's commitment is total, that of personnel must be even higher. The Management provides the driving forces but personnel members are driving gears to move the whole IDE train forward. When the personnel is totally committed, the lack or inadequacy of resources will not pose any barriers or obstacle to the success.

About the Author:

Dr. Chaiyong Brahmawong earned a B.Ed. (1964) and M.Ed. (1966) from Chulalongkorn University and M.S. in Education Administration and Supervision (1968) and Ph.D. in Instructional Technology (1972) from the University of Southern California under Fulbright/Hayes grant.

While working for a doctorate degree, he was a media coordinator at the Department of Teacher Education, USC School of Education (1968-1972). In Thailand, he was an instructor (1972), assistant professor (1975), and associate professor (1978) at the

Faculty of Education, Chulalongkorn University and served as Program Chairman in Educational Technology and Director of Audio-Visual Unit, Chulalongkorn University.

He was a visiting lecturer at the Institute of Educational Technology, the Open University, Milton Keynes, UK (1976), UNESCO consultant in Communication Technologies for Education, EDPITAF, Manila, the Philippines (1976); a Member of the Planning Committee of Thailand's Open University (1977-78).

After Sukhothai Thammathirat Open University was established, Dr. Chaiyong was the founding Director of the Office of Educational Technology (OET), STOU.

During 1980-1987, he developed STOU Plan for Distance Learning System, designed STOU's self-learning texts, developed tutorial approach, proposed the project for Educational Broadcasting Production Center (EBPC) under Japan's Grant Aid of totally 12.5 million dollars; developed STOU's graduate programs and other major components of STOU's distance education system.

He served as a UNESCO/UNDP consultant in distance education and educational technology in Indonesia, Japan, Maldives, Sri Lanka, Laos, Malaysia, Pakistan, India, and Bangladesh (1987-1993).

In 1988, he was appointed by a Royal decree as Full professor (Class 10 Professorship) in Education and Senior Professor (Class 11 Professorship) in Education 1998.

He was the Project Director of Borderless E-learning Education Project of Suranaree University of Technology in Korat, Thailand (1996-1999) and Director of the Office of Training, Disseminations, and Public Relations, King Prajadhipok's Institute (1999-2000).

Before joining College of Internet Distance Education, Assumption University

as Chief Technology Officer, he was Vice-President for Academic Affairs, Sukhothai Thammathirat Open University (2000-2002), Adviser to the Educational Technology Center, Dhurakit Pundit University (2002-3).