Ph. D. Programs in eLearning Methodology and in Interdisciplinarity with ICT

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1. Introduction

- Two of the most important developments in education are:
  1. eLearning
  2. Interdisciplinary studies
● eLearning has become an increasingly vital tool for:
  * Education
  * Business
  * Social Development
To prepare persons to serve the rapid growth of eLearning demands, Ph.D. program in eLearning Methodology (eLm) is needed.
Prof. Charmonman founded the first College of Internet Distance Education in Thailand at Assumption University (AU) to offer Ph. D. eLm in the year 2006.
In the year 2012, Prof. Charmonman moved from AU to Siam Technology where he established a Ph. D. program in eLM.
Most important problems nowadays cannot be solved by using a single field of knowledge.

Several fields of knowledge must be used and called "interdisciplinary"
2. The First Ph.D. Program in the World on eLearning Methodology

2.1 General Information on Ph.D. eLm
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2.3 Fact about Ph.D. eLm
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2.1 General Information on Ph.D. eLm

- Thailand is the first country in the world to offer Ph.D. in eLearning Methodology
- Searching Google for Ph.D. eLearning Methodology, the first 10 entries are about Thailand’s program.
General Info on Ph.D. eLm (Cont.)
Students from 30 countries have applied for admission such as USA, Canada, UK, Germany, Belgium, Australia, New Zealand, and Japan.
Some reasons students cited:

* Everything online
* No requirement to go to Thailand
* Proxied exams can be taken anywhere in the world
* Low cost about 15,435 US$
2.2 Vision, Mission and Goals of Ph.D. eLm

- Vision: To produce professional leaders, researchers, and practitioners in eLm.
- Mission: To produce eLearning leaders who are ethical and highly competitive.
Goals: To produce eLearning researchers who are:

* Ethical and highly representative
* Creative
* Skillful
* Outstanding
2.3 Facts about Ph.D eLm

- Research-oriented program
- Three years or six semesters
- No class to attend
- Admission requirements:
  * Master’s Degree
  * 2 years experience
  * 3 letters of recommendation
  * A research concept paper
Graduation requirements:
* TOEFL 79 Internet-based Testing or IELTS 6.5 in every part
* Pass qualifying exam
* Pass proposal defense
* Pass dissertation final defense
Graduation requirements (cont.):
- Research article published in refereed journals
- Earn 48 credits for dissertation

Dissertation must be:
- Significant
- Original
2.4 Sample Dissertation Topics

- Development of a Flash-Based Mobile Learning System for Learning English as a Second Language
- eLearning Management Model for Higher Education in Thailand
- Web Accessibility Model for Visually-Impaired Students on eLearning Website
Sample Dissertation Topics (Cont.)

- Evaluating Indicators of Interactivity in eLearning Courses in a Virtual Learning Environment (VLE)
- Development of eLearning Models for Prevention of Nutrition Related Diseases
3. Trends in Ph.D. in Interdisciplinary with ICT

3.1 General Information about Interdisciplinarity
3.2 Philosophy and Objective of Program
3.3 Admission Requirements
3.4 Dissertation Requirements
3.1 General Information about Interdisciplinarity

- Most problems in national developments nowadays cannot be solved by using only a single field of knowledge
- Experts from several fields must cooperate in solving the problems
Educational institutions all over the world are offering or in the process of offering degree programs in interdisciplinarity.

Prof Charmonman has established a Ph.D. program in Interdisciplinary in ICT (Ph.D. IDICT) at Siam Technology in Thailand.
3.2 Philosophy of Ph.D. IDICT

- Ph.D. IDICT will produce graduates who:
  * have a thorough understanding of current situation and specific needs of the local IDICT industry
  * are effective communicators capable of combining IDICT skills with professional media skills
Philosophy of Ph.D. IDICT (Cont.)

- Ph.D. IDICT will produce graduates who (cont.):
  - are ready to take advantage of the opportunities Thailand’s strong position within the world of international IDICT industry has to offer
  - have gained hands on experience thru studying with specialists in the field
Philosophy of Ph.D. IDICT (Cont.)

- Ph.D. IDICT will produce graduates who (cont.):
  * are able to think critically, objectively, and creatively in order to contribute to the quality of IDICT
Philosophy of Ph.D. IDICT (Cont.)

- Ph.D. IDICT is a research oriented program designed to produce:
  * Research scholars
  * College instructors
  * Leaders who are excellent and competent in the field of IDICT
Objectives of Ph.D. IDICT is to produce graduates who:

* Can apply codes of conduct according to the academic professions

* Have advanced knowledge in IDICT and thoroughly understand the concepts, principles and theories of IDICT
Objectives of Ph.D. IDICT is to produce graduates who (cont.):

* Able to lead and organize education with the integration of IDICT
* Able to conduct innovative research systematically to direct the practice of IDICT
Objectives of Ph.D. IDICT is to produce graduates who (cont.):
* Capable of working cooperatively with others
* Communicate effectively through oral, written and IT skills
Dissertation Requirement for Ph.D. IDICT:

* Brief Description of Task
  - All students are expected to undertake a research project under the supervision of an advisor
* Brief Description of Task (cont.)
- The topics of dissertation are based on the interests of individual students, originality and significance
* Brief Description of Task (cont.)

- Upon completion of the research, students are required to have an article or part of the dissertation published in a refereed journal
● Dissertation Requirement for Ph.D. IDICT (cont.):
* Standard Learning Outcomes:
  - Their thorough knowledge and critical understanding on the theoretical background in IDICT and at least one more detailed aspect of the discipline studied
* Standard Learning Outcomes (cont.):
- Their ability to synthesize and apply the results of research in proposing solutions to theoretical and practical problems
* Standard Learning Outcomes (cont.):
- Their ability to confidently communicate the results of their individual research and contribute to the ongoing academic debate in the field of IDICT
* Standard Learning Outcomes (cont.):
  - Their excellent communication skills
    and academic writing skills
* Scheduling:
  - First and second semester,
  first year to third year
* Number of Credits:
- 48 credits
* Preparation:
- The students’ works on a dissertation are assigned by a Major Dissertation Advisor.
- Depending on the topic of the dissertation and additional dissertation, a Co-advisor can be assigned to facilitate the process.
* Preparation (cont.):
  - The students are expected to contact regularly with their advisors at least once a week
Ph.D. IDICT (Cont.)

- Dissertation Requirement for Ph.D. IDICT (cont.):
  * Evaluation Process:
    - All the dissertations are to be approved by the committees of the examination
    - If there is a dissertation Co-advisor responsible for the dissertation, the Co-advisor will approve all the chapters together with the Major Advisor
* Evaluation Process (cont.):
- An examination committee of Qualifying Examination consisting of 4 members will be set up for the purpose of evaluation.
The committees will consist of Chair, Major Advisor, Co-advisor and faculty member.
* Evaluation Process (cont.):
- The objective of Qualifying Examination is to evaluate student’s knowledge relevant to IDICT and student’s interested topic
* Evaluation Process (cont.):
  - An examination committee of Proposal Defenses and the Final Defenses for students’ dissertations consisting of 5 members will be set up for the purpose of evaluation
* Evaluation Process (cont.):
  - Any further corrections to the dissertation required by the examining committee will be checked by the Major Advisor and then verified by the examination committee
Knowledge to be acquired:

* Have thorough knowledge and critical understanding of the most significant concepts, principles and theories of IDICT and their professional applications in the world of IDICT
Knowledge (Cont.)

Knowledge to be acquired (cont.):

* Develop knowledge/model in the area of specialization of IDICT
* Understand how new knowledge about IDICT is developed and applied, and the implications of the new research for online education and related disciplines
Knowledge (Cont.)

• Knowledge to be acquired (cont.):
  * Contribute to the current academic activity in IDICT by disseminating their research through professional conference presentations and publications
Teaching Strategies:
* Online Self Study
* Webinars
* Workshops
* Individual reading assignments
* Individual research assignments
Knowledge (Cont.)

- Teaching Strategies (cont.):
  * Team work assignments/projects
  * Online group discussions
  * Individual presentations
Knowledge (Cont.)

Evaluation Strategies:
- Documentary research
- Research proposal
- Oral examinations
- Lecturer’s feedback on presentations
- Peer’s feedback on presentations
Knowledge (Cont.)

- Evaluation Strategies (cont.):
  * Online feedback through the course website and email
  * Dissertation
Cognitive Skills

● Cognitive Skills to be Developed:
  * Consistently apply practical and theoretical knowledge in dealing with a wide variety of academic and professional contexts, some of which are to some extent unpredictable
Cognitive Skills (Cont.)

- Cognitive Skills to be developed (cont.):
  * Synthesize and apply the existing research as well as develop significant new ideas and integrate them into or challenge established knowledge
Cognitive Skills (Cont.)

- Cognitive Skills to be developed (cont.):
  * Critically respond to complex academic issues and provide creative solutions
  * Make informed and reasonable judgments when lacking consistent information
Cognitive Skills (Cont.)

- Cognitive Skills to be developed (cont.):
  * Apply advanced specialized research techniques
Teaching Strategies:

* Individual reading assignments
* Individual written assignments
* Individual reviewing assignments
* Online group discussions
* Individual presentations
* Workshops
● Evaluating Strategies:
  * Documentary research
  * Research proposals
  * Dissertation
  * Lecturer’s feedback on presentations
  * Peer’s feedback on presentations
Interpersonal Skills and Responsibilities

- Interpersonal skills and responsibilities to develop:
  * Take initiative in identifying and responding creatively to complex issues and problems in an academic and professional context
  * Accept full responsibility for one’s own work
Interpersonal Skills and Responsibilities (Cont.)

- Interpersonal skills and responsibilities to develop (cont.):
  - Cooperate fully and constructively with others in dealing with issues and problems
  - Exercise leadership skills if needed
  - Take responsibility for developing opportunities to support the continuing professional development to others
Interpersonal Skills and Responsibilities (Cont.)

- Interpersonal skills and responsibilities to develop (cont.):
  * Provide feedback and constructive criticism to others
  * Revise one’s judgments, arguments, opinions, and conduct based on self-evaluation, as well as feedback and constructive criticism from others
Teaching Strategies:
* Group discussions involving problem solving
* Team work assignments/ projects
* Individual presentations
* Online discussions
Evaluation Strategies:
* Peer evaluation
* Open feedback sessions
* Documentary research
* Research proposals
* Dissertation
* Lecturer’s feedback on presentations
Interpersonal Skills and Responsibilities (Cont.)

- Evaluation Strategies (cont.):
  * Peers’ feedback on presentations
  * Online feedback through the course website and email
Numerical Analysis, Communication, and Information Technology Skills to be developed:

* Communicate effectively in English through formal and informal reports and presentations.
* Communicate effectively in English in written and oral form.
* Make effective use of mathematical and statistical data.
* Communicate effectively using visual supportive materials, such as charts, tables, graphs, or figures.

* Use a wide range of information and communications technology appropriate for the task.
Ph.D. IDICT Program Evaluation and Improvement

- Evaluation of Teaching Strategies:
  * the analysis of students’ achievements measured by
    - the low number of dropouts
    - the high number of graduates
  * the high level of students’ satisfaction evaluated from
    - regular feedback sessions with students
    and the students’ representative
Evaluation of Teaching Strategies (cont.):

* Consultation with experts and educators in the field of IDICT
Ph.D. IDICT Program Evaluation and Improvement (Cont.)

- Evaluation of Faculty Members’ Skills in Using Teaching Techniques:
  * Regular feedback sessions with students
  * Regular meetings with the students’ representatives
  * Semestral feedback sessions with the Program Director
Evaluation of Faculty Members’ Skills in Using teaching Techniques (cont.):

* Consultation with other faculty members during regular faculty meetings
Overall Program Evaluation:

* Overall program evaluation will be done by
  - Current students and graduates
  - External experts
  - Employers and/or other stakeholders.
Ph.D. IDICT Program Evaluation and Improvement (Cont.)

- Review of Program Evaluation and Improvement Plan:
  * The Major-advisors and co-advisors Faculty submit reports of students’ progress to the Program Director.
  * The Program Director prepares the annual summary of the areas of the program that are effectively carried out and areas which need improvement.
Review of Program Evaluation and Improvement Plan (cont.):

* A meeting of faculty members is conducted to discuss and evaluate the program effectiveness and devise an improvement plan
4. Concluding Remarks

- Two of the most important development in Education are:
  - eLearning
  - Interdisciplinarity
This paper discusses two Ph.D. programs:

* Ph.D. in eLearning Methodology
* Ph.D. in Interdisciplinarity with ICT
● Educational institutions not already offering the above two Ph.D. programs should explore the possibility of offering them for the benefits of all concerned