Teacher and Educational Personnel Development through e-Training: UTQ Online Office of the Basic Education Commission, Ministry of Education, Thailand

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***Abstract*—The Office of the Basic Education Commission (OBEC), Ministry of Education, Thailand has considered a special course to upgrade teachers' qualification. The e-Training: UTQ Online was introduced and investigated. This research was aimed to study; the curriculum development, the curriculum implementation, and its e-training achievement. The target groups in the research included teachers, educational personnel, online instructors, UTQ Online administrators, and e-training coordinators. The tools used consisted of a recording form, an evaluation form, a questionnaire, and focus group interviews. Data were collected in the form of: documentary method, questioning, recording, and focus group discussion. The e-Training curriculum was divided into two sessions with 328,524 participants and 392,399 participants respectively. The triangulation techniques and qualitative data were analyzed and reported in the form of descriptive statistics. The results have found that: 1) the UTQ Online curriculum has had an impact on the curriculum development, courseware development, and the system of training management. 2) the UTQ Online curriculum implementation has improved the training preparation, training project management, and training operation and 3) the participants in both sessions have highly achieved; 85.11 percent and 75.60percent respectively. The trainees, online instructors, and e-training coordinators were satisfied with the UTQ Online training and their attitudes towards information technology have completely changed.**

***Index Terms*—E-Training, UTQ Online, OBEC, teacher and educational personnel development.**

I. Introduction

Constitution of the Kingdom of Thailand states that a person shall have the freedom of training [1]. According to the National Economic and Social Development Plan, the progressive technological change has had an impact on Thailand in terms of the appropriate application [2]. The Second Thailand Information and Communication Technology Master Plan relating to the development of information technology and communication for economic and social development has put its focus on the development and application of ICT in education (e-Education) [3]. In addition, the Thailand Government Plan in education has specified its policy [4], and educational administration plan to enhance teachers and educational personnel development projects. This included a project called "The Strong Thailand Operational Plan 2012" (The Stimulus Package 2: SP2). The purpose was to upgrade and modernize the quality of education and the whole system of learning.

The Ministry of education has specified the education development strategy on teachers' reform [5]. The OBEC has established the Upgrading Teacher Qualification through the Whole System by using e-Training: UTQ Online. Therefore, the aim of this research was to study the process of the state teacher and educational personnel development projects through e-Training program (UTQ Online). The results of this study would benefit the policy of the Ministry of the Education to enhance the state teacher and educational personnel development in the future.

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II. E-Training Development

The term e-Learning also known as electronic learning refers to a wide range of applications and processes designed to deliver instruction through electronic means. E-Learning is part of the new dynamic that characterizes educational systems at the start of the 21st century, resulting from the merge of different disciplines, such as computer science, communication technology, and pedagogy. It is a new education concept by using the internet technology, it deliveries the digital content, provides a learner-orient environment for the teachers and students. The e-Learning promotes the construction of life-long learning opinions and learning society [6].

A. E-Learning

E-Learning can be delivered and presented to a learner in many different ways and for a range of purposes. The different types of e-Learning are based on the degree of interactivity required of each [7].

Type-1 learning: Type-1 learning involves low interactivity mainly text, multimedia or one-way communication. This type of learning can be delivered through PowerPoint presentation, learning on a personal digital assistant, e-books, podcasting, videotape and audiotape.

Type-2 learning: Type-2 learning involves moderate to high interactivity and has some degree of learner to computer interaction. This kind of e-learning can be delivered through interactive resources, quizzes, tests, reflective learning, games, demonstrations and simulations.

Type-3 learning: Type-3 learning involves higher interactivity and also includes learner to learner and learner to trainer interaction. It can be delivered through virtual classrooms, streaming media, group games, video

conferences, audio conferences, chat groups, emails, discussion lists, blogging, wikis, and mob logging.

B. E-Training

E-Training is the training program through Information Communication and Technology with appropriate electronic tools to facilitate the following [8]:

- A trainee could access the program anywhere, any time with anybody as required.
- A trainee can independently study (Self-Directed Learning).
- The multimedia presentation contains information, images, animation, audio, and video to motivate more learning.
- A trainee can independently select any topic of interest (Non-Linear).
- There is an interactive system that the trainee can access through the links.

C. E-Training Program Design

The procedure of designing the e-Training program was to [9];

- Analyze trainees
- Analyze the content or information
- Specify learning outcomes
- Specify training activities and steps to make them interesting accordingly to the content and objectives
- Specify training media
- Specify a method and assessment criteria

D. E-Training Activities Design

Principles of designing e-Training activities were to:

- Focus on e-training activities to enhance self-directed learning through computer network.
- Assign the trainees to study from online media, practice, self-train to develop a thinking process, and follow what is required in the work sheet. Online teachers exchanged learning experiences.
- Arrange integrated training activities associated to the learning content and a variety of learning resources. More importantly, depictions of morality and ethics, especially professional ethics were also included.
- Facilitate online learning system that could be easily accessible any time and wherever there is a computer network system.
- Training activities that could make use of various computer network capacities were arranged.
- Training activities fulfilled both synchronous and asynchronous learning.
- The learning process was flexible. There was no timing limitation for each unit. Learners could take time as much as wanted.
- Design a training model to promote the information technology development for the trainees.

E. E-Training Activities

Format of various training activities [10]:

- Self-Directed Learning and Self-Practice as assigned in the work sheet
- Internet searching
- Online discussion and conversation
- IT-based learning
- Integrated instruction
- Online lecturing

F. E-Training Media

- Training through computer networking
- Training plan through online curriculum and individual unit
- Presentation with description
- Online video and audio
- Online lecture document
- Online work sheet
- Online information sheet
- Example of a online document writing
- Learning resources to link with learning resources
- Email
- Web board

G. Method and Assessment Criteria

- Pre and post test
- Online learning activities
- Interacting on web board
- Self-assessment
- Do unit test

III. Methodology

A. Target Groups

- 328,524 of State teachers and educational personnel, including teachers, school administrators, educational executives and supervisors around the country were trained in UTQ Online during the fiscal year of 2010 and 392,399 people in the fiscal year of 2011.
- 65 UTQ Online teachers in the fiscal year of 2010 and 44 people in the fiscal year of 2011.
- 12 UTQ Online system developers and administrators.
- 20 e-training coordinators.

B. Research Materials

- Record of e-Training curriculum development process.
- Record of the development of e-Training management system.
- Record of e-Training program management.
- Record of the e-Training program results.
- E-Training curriculum evaluation.
- Evaluate e-Training lessons.
- Satisfaction questionnaire on e-Training program.
- Focus group discussion questions and interviews to give feedback towards e-Training program.

C. Data Collection

- Documentary reviewing.

- Trainee's satisfaction questionnaire towards the e-training program speakers and e-training program regional coordinators.
- The record was sent to the system developers and the UTQ Online administrators.
- Focus group discussion consisted of UTQ Online administrators, online training course instructors and e-training regional coordinators.
- The data were collected and validated.

The investigators' triangulation technique, the methodological triangulation technique, and the data triangulation technique were applied. These included a number of researchers, multiple data collection methods, and several data resources.

D. Data Analysis

- Quantitative analysis in the form of descriptive statistics like percentage, mean and standard deviation
- Content qualitative analysis.

IV. Results

A. UTQ Online Curriculum Development Procedure

Session 1 and session 2, 32 curricula and 43 curricula were developed accordingly to the following curriculum development principles:

- E-Training curriculum development comprised;
  1) Designed e-Training curriculum model to enhance online self-directed learning with its major focus on the training activities and the potential of information technology application
  2) Designed an e-Training curriculum
  3) The e-Training curriculum was validated by content experts. The results from session 1 and session 2 were found at the very high level: 87.50 percent and 100 percent.
- The e-Training courseware development had five steps:
  1) The e-Training courseware prototype validated by experts.
  2) Each e-Training unit was well structured with course description, objectives, content, e- training activities, assessment, e-training document, pre and post test, unit evaluation, and suggestions for online training course instructors.
  3) E-Training courseware evaluation by the experts.
  4) E-Training courseware trial which found could be applied.
- E-Training design and management.

Developed e-Training computer network and TMS-UTQ Online including the trial system by the users around the country.

Fig. 1. UTQ Online web page.

Fig. 2. UTQ Online media.

B. UTQ Online Curriculum Implementation

- E-training preparation

Advertised the program, training scheduling, training handbook, online instructors, and online administrators. Every eligible trainee was confirmed through the electronic mail.

- E-training program procedure

The first session took one month and two weeks while the second session took five months. The eligible trainees selected the course had to do a pre and post-test before taking Unit 1 and moving to Unit 2. This procedure was repeated until all the units were completed. The evaluation was conducted again after all the unit completion. The trainees had to participate not less than 70 percent of the overall activities. The system would process the results and printed the training certificate. 328,524 participants from the first session and 392,399 participants from the second session, logged in 1,964,227 times obtained the certificate.

- E-training operation

The objectives of the training curriculum were to develop state teachers and educational personnel to the stage of implementation. System administrators, committees, supervisors, and regional coordinators were nominated and appointed. Call center administrators were assigned to be responsible for telephone calls, email, web board or Facebook.

Fig. 3. UTQ Online training.

C. E-Training Achievement

- Passing criteria

Session 1 trainees passed the criteria 85.11percent, and while the session 2 trainees passed the criteria 75.60 percent.

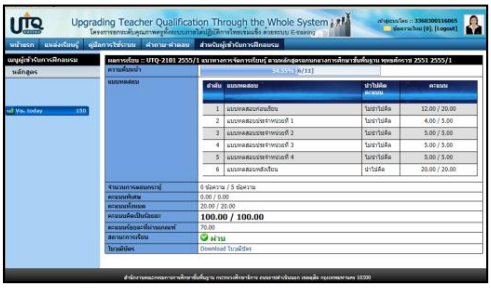

Fig. 4. UTQ Online evaluation report.

- Satisfaction on e-Training

Session 1and 2, the trainees were satisfied towards UTQ Online at a high level ($\overline{X}$ = 3.60, S.D. = 0.27, $\overline{X}$ = 4.13, S.D. = 0.71). The online training course instructors were satisfied on UTQ Online also at the high and highest level ($\overline{X}$ = 3.93, S.D. = 0.25, $\overline{X}$ = 4.52, S.D. = 0.61(. The e-training coordinators were satisfied on UTQ Online at the high level as well ($\overline{X}$ = 4.19, S.D. = 0.71).

However, some weak points of the training were found. Some trainees were not trained and did the test by themselves. The online test was not specified and conducted at the specific standard test center.

V. Conclusion

The process to develop state teachers and educational personnel with e-Training (UTQ Online) organized by the Office of the Basic Education Commission, Ministry of Education for two years has enhanced the quality of e-Training curriculum. More importantly, the trainees have improved skills and attitudes towards the information technology as well as self-directed learning. This also included a wide range of knowledge, thinking process, and guide lines for implementation.

The e-Training model is flexible. Each trainee is required self responsibility, maturation, enthusiasm to learn more, intention to search for new knowledge, self-monitoring, particularly, honesty and morality to apply ICT to develop oneself.

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