Competency Experience-Based Training (CEBT) Model with Ubiquitous Community of Practice (U-CoP) to Enhance Transformation Digital Supervisor

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Abstract

Research subject Competency Experience-Based Training (CEBT) Model with Ubiquitous Community of Practice (U-CoP) to Enhance Transformation Digital Supervisor. This research aims to evaluate the digital supervisor competency trained with the Competency Experience-Based Training (CEBT) Model with Ubiquitous Community of Practice (U-CoP). The researcher has divided the research process into 3 steps as follows: Step 1: To develop the Competency Experience-Based Training (CEBT) Model with Ubiquitous Community of Practice (U-CoP) to enhance transformation digital supervisor. Step 2: To develop the Competency Experience-Based Training course with Ubiquitous Community of Practice (U-CoP) to enhance transformation digital supervisor. Step 3: Evaluate the digital supervisor competency trained with the Competency Experience-Based Training (CEBT) Model with Ubiquitous Community of Practice (U-CoP). The results of the research were as follows: 1) the Competency Experience-Based Training course with Ubiquitous Community of Practice (U-CoP) to enhance transformation digital supervisor, it consists of 3 main processes and 10 sub-steps. Ubiquitous community of practice consists of 2 parts. 1) Community of practice, and Ubiquitous technology 2) Competency Experience-Based Training course with Ubiquitous Community of Practice (U-CoP) to enhance transformation digital supervisor consisting of 6 components. The results of the evaluation of digital supervisor competency in training participants with a model developed using pre-training and post-training surveys showed that trainees scored higher than their pre-training digital supervisor competency at a statistically significant .01 level.

Keywords: competency experience-based training (CEBT), ubiquitous community of practice, digital competency, digital supervisor, digital transformation

1. Introduction

1.1 Introduce the Problem

The 20-year national education plan is the future of Thailand. Focusing on people's desire to have lifelong learning, ubiquitous learning is one of the channels for lifelong learning according to age, responding to differences between individuals (Weiser, 1991) saying: anytime, anywhere learning system. It is the process of integrating computers with the physical world, and Ubiquitous Education/Learning is the learning technology of the society of the future that will happen under changes and advances in computer technology and information efficiency because U-Learning is learning that can be done anywhere. No restrictions on time and place of study Learners and teachers can create learning interactions (learning interactions) and eventually access a variety of learning resources. Therefore, U-Learning is an interesting educational technology innovation for Thai education because Thailand is equipped with basic technological hardware, access technology, and application technology to support the adoption of U-Learning. If you can understand the system and the benefits of using U-Learning correctly, you will be able to apply it effectively in the study. (Petchmanee & Nilsook, 2010)

The model for applying U-Learning is the Ubiquitous Community of Practice, which is a network of relationships of people who come to exchange knowledge or have an action together with a learning process that does not focus on teaching memorization but rather absorbing through imitation and seeing or learning experiences. This is therefore not caused by the ability of the individual but is a process that requires participation in social practice. At

present, it is an era where technology has changed by leaps and bounds, affecting human learning changes as well. Education is therefore an important tool for raising the quality of the population in Thailand to keep up with changes. Training is a process for developing people that promotes lifelong learning in terms of knowledge (Knowledge: K), skills (Skill: S), and ability (Attitude: A) to enable trainees to change behaviors to meet the objectives of the training with full efficiency and effectiveness. Based on an experience-based training process (experience-based approach), which is a training model that has the concept of system development using social media as the center to coordinate knowledge and experience from learning sources (audio and video sources) and interactions between members (Khotphong, Hoxsuwan, & Seechaliao, 2018) who must have a competency-based training course based on experience, which is a plan or project for organizing mass experiences or teaching and learning management that requires learning outcomes. It is the competence in performing various tasks that meets the needs of the profession. (Office of the Education Council, 2017) It also resulted in individuals developing mass knowledge and the ability to learn eventually. Here we will talk about the development of education supervisors, who are personnel in the government sector who are responsible for promoting and supporting education in Thailand through the use of digital tools in operations to meet the required competencies, which will drive Thailand into the Thailand 4.0 era in terms of personnel.

2. Objectives

1) To develop the Competency Experience-Based Training (CEBT) Model with Ubiquitous Community of Practice (U-CoP) to enhance transformation digital supervisor.

2) To develop the Competency Experience-Based Training course with Ubiquitous Community of Practice (U-CoP) to enhance transformation digital supervisor.

3) To evaluate the digital supervisor competency trained with the Competency Experience-Based Training (CEBT) Model with Ubiquitous Community of Practice (U-CoP).

3. Related Work

3.1 Competency Experience-Based Training (CEBT) Model

Competency Experience-Base Training (CEBT) refers to a course-based training method in which trainees acquire substantive knowledge from their experience in performing tasks and work from the source of science or the source provided to achieve the goal. The result of training is competence in performing various tasks that meet the needs of the profession. It consists of 3 main processes and 10 sub-steps. The first process is training planning, consisting of 1) Orientation describes the objectives of the experience to be encountered, provides context, presents situations, describes missions, identifies resources, media, and facilities, and identifies expected outcomes. 2) Pre-training assessment is a study of the former experience of the trainees by allowing them to do a test before confronting the experience. The second process is conducting training, in which the trainees enter the main situations or experiences that are defined in each experience unit according to the following steps: 3) Confront, 4) Advancing, 5) Blending, and 6) Subdue. The third process is evaluating training outcomes, including 7) Progress report: This makes it known that the tasks that the trainees do in the face of the situation 8) Presentation: Report the final results of the encounter. After the trainees face the experience and progress reports, 9) Summary: Conclusion of the experience after the trainees have presented their results and the participants and the trainees help to draw conclusions, and 10) Evaluating after training: It is a study of the progress of the trainees by taking the test after confronting experiences.

3.2 Ubiquitous Community of Practice

The ubiquitous community of practice consists of 2 parts. 1) Community of practice consists of objectives, participants (supervisor), concepts and attitudes, process and productivity 2) Ubiquitous technology consists of basic technology, hardware technology, access technology, and application technology.

3.3 Digital Supervisor Competency

Digital supervisor competency consists of five competencies as follows: 1) Digital literacy, 2) Digital use, 3) Use of digital technology for education, 4) Digital transformation leadership; 5) Digital technology ethics.

4. Method

4.1 Scope of the Research

The scope of this research consisted of 21 experts to assess and express opinions on the training models and training courses developed in four areas: three curriculum and teaching experts, research experts, and research experts. Measurement and evaluation consisted of 3 people, 7 experts in educational technology and communication, and 8 expert supervisors, based on the basic Primary Educational Service Area Office in Bangkok

and its vicinity, obtained by multi-stage sampling.

4.2 Research Process

Step 1: To develop the Competency Experience-Based Training (CEBT) Model with Ubiquitous Community of Practice (U-CoP) to enhance transformation digital supervisor, according to research items

1) A study of concepts, theories, and literature related to an experience-based, competency-based training model with a community of practitioners for the transition of digital supervision education from analysis and synthesis of relevant data, documents, and research.

2) Assessed by 3 experts in curriculum and teaching who are professors in higher education institutions with academic positions or with a doctorate degree. Courses in teaching or related fields Research specialist Measurement and evaluation: 3 people are professors in higher education institutions, with an academic position or with a doctoral degree in research, measurement, and evaluation or related fields. In technology and communication for education, 7 people are professors in higher education institutions have an academic position or have a Ph.D. in technology and communication for education or related fields, and 8 are educational supervisory experts who are government officials holding supervisory positions. School Director Academic Studies with Specialized Academic Standing Director of Educational Service Area Office Deputy Director of Educational Service Area Office in the position of 5 years or more.

3) The tools used in this research process consisted of

- Competency Experience-Based Training (CEBT) Model with Ubiquitous Community of Practice (U-CoP) to enhance transformation digital supervisor.

- Evaluation form of Competency Experience-Based Training (CEBT) Model with Ubiquitous Community of Practice (U-CoP) to enhance transformation digital supervisor which is a 5-level scale (Rating Scale)

4) Analyzed by finding the mean (Mean) and the standard deviation (SD) of the suitability level.

Step 2: To develop the Competency Experience-Based Training course with Ubiquitous Community of Practice (U-CoP) to enhance transformation digital supervisor, follow the research process as follows.

1) Review the concepts, theories, and literature related to the principles of experience-based competency-based training formulas with a community of practitioners for the transition of digital supervision studies from analysis to practice and synthesize relevant data, documents, and research.

2) 3 experts in curriculum and teaching with doctoral degrees Courses in teaching or related fields Measurement and Evaluation of Research Expert Three people with doctoral degrees in research, measurement, and evaluation or related fields. 5 experts in technology and communication for education who are professors in higher education institutions, have an academic position or have a doctorate degree, are presented. Six people are government officials holding supervisory positions in technology and communication for education or related fields, and three are educational supervision specialists. Director of Educational Service Area Office, Director of Supervision Group Monitor and evaluate educational management outcomes. Academic studies with academic standing, special expertise, or more, having experience in the position for 5 years or more.

3) The tools used in this research process consist of:

- Competency Experience-Based Training course with Ubiquitous Community of Practice (U-CoP) to enhance transformation digital supervisor.

- Appropriate model of the Competency Experience-Based Training course with Ubiquitous Community of Practice (U-CoP) to enhance transformation digital supervisor

4) Analyze suitability by finding the mean (Mean) and the standard deviation (SD) of the suitability level.

Step 3: To evaluate the digital supervisor competency trained with the Competency Experience-Based Training (CEBT) Model with Ubiquitous Community of Practice (U-CoP), follow the research process as follows

1) Create an assessment. Evaluate the digital supervisor competency that was developed using the Competency Experience-Based Training (CEBT) Model and the Ubiquitous Community of Practice (U-CoP).

2) Study supervisors who attended Competency Experience-Based Training (CEBT) Model with Ubiquitous Community of Practice (U-CoP) to Enhance Transformation Digital Supervisor Study were required to do a digital supervisory competency assessment before the training. by using the assessment form that was created, totaling 58 items.

3) Organized training for supervisors using the Competency Experience-Based Training (CEBT) Model with a

Ubiquitous Community of Practice (U-CoP) using the duration of training of 2 days.

4) Evaluate the digital supervisor competency trained with the Competency Experience-Based Training (CEBT) Model with Ubiquitous Community of Practice (U-CoP) by using the assessment form that was created, amounting to 58 items.

5) Data analysis from the assessment of the ability to study digital supervision before and after training by using a t-test.

5. Results

5.1 Competency Experience-Based Training (CEBT) Model

The model of Competency Experience-Based Training (CEBT) Model with Ubiquitous Community of Practice (U-CoP) to enhance transformation digital supervisor. Show details of the developed model into 3 main parts, namely inputs, processes, and outputs, which are detailed as shown in the figure.
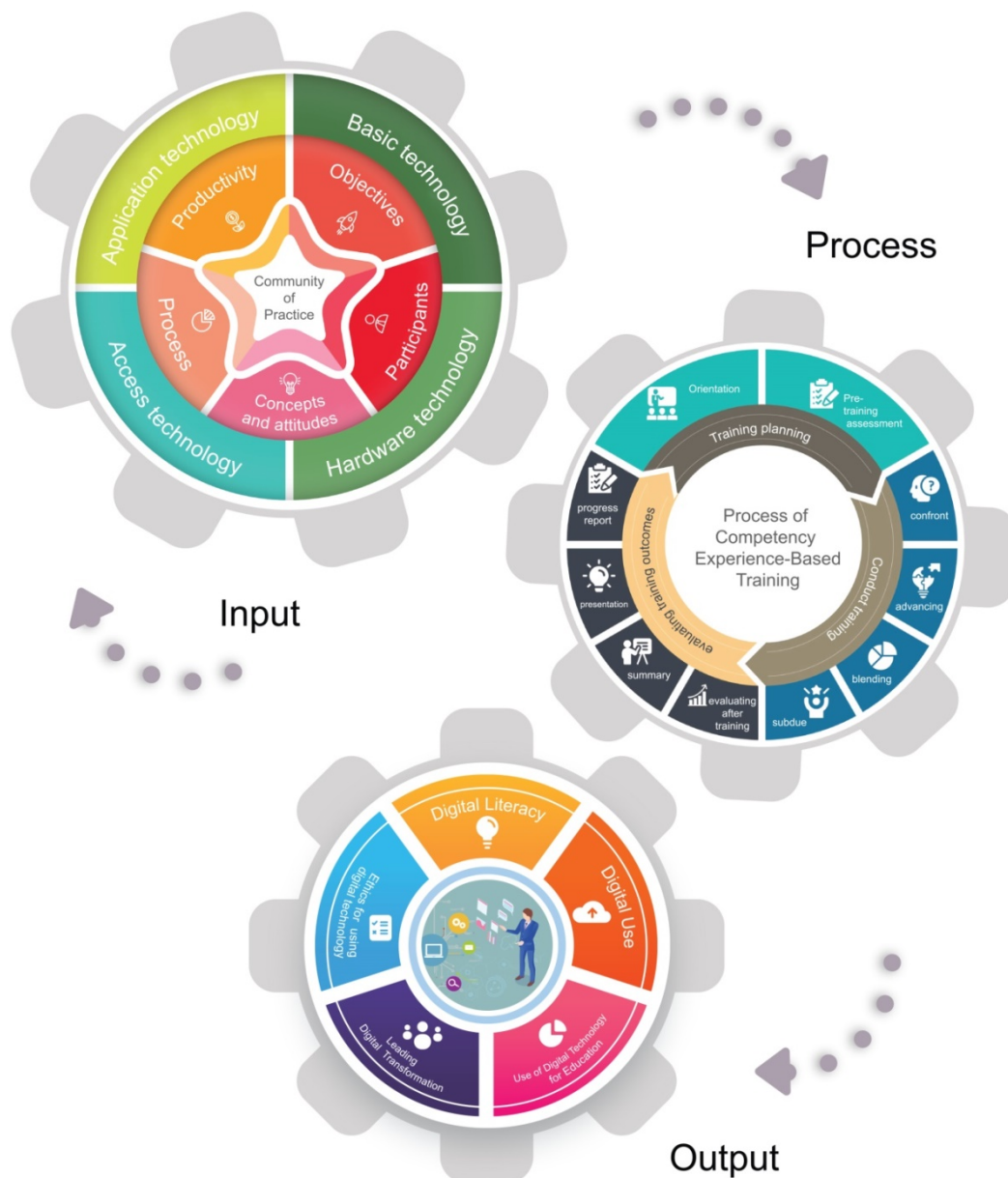

Figure 1. Competency Experience-Based Training (CEBT) model with Ubiquitous Community of Practice (U-CoP) to enhance transformation digital supervisor

From the figure, Competency Experience-Based Training (CEBT) Model with Ubiquitous Community of Practice (U-CoP) to enhance transformation digital supervisor, show details in 3 main parts:

The first part, the inputs, the ubiquitous community of practice consists of 2 parts. 1.1) Community of Practice consists of objectives, participants (supervisor), concepts and attitudes, process and productivity 1.2) Ubiquitous technology consists of basic technology, hardware technology, access technology, and application technology.

The second part is the process, which is the Process of Competency Experience-Based Training (CEBT) Model. It consists of 3 main processes and 10 sub-steps. The first process is training planning, consisting of 1) orientation and 2) pre-training assessment. The second process is conducting training, consisting of 3) confront, 4) advancing, 5) blending, and 6) subdue. The third process is evaluating training outcomes, consisting of 7) progress report, 8) presentation, 9) summary, and 10) evaluating after training.

Part 3 Outcomes consists of the digital supervisor competency set comprising of five competencies: 1) Digital literacy, 2) Digital use, 3) Use of digital technology for education, 4) Leading digital transformation, 5) Ethics for using digital technology. (Prasongmanee, Wannapiroon, & Nilsook, 2021)

Table 1. The evaluation of develop the Competency Experience-Based Training (CEBT) Model with Ubiquitous Community of Practice (U-CoP) to enhance transformation digital supervisor (n=21), Overall evaluation of the developed training model

Details	$\bar{X}$	S.D.	The quality level
Analyze of the ubiquitous community of practice of the input factors	4.91	0.17	Most appropriate
The process of Competency Experience-Based Training (CEBT) Model	4.88	0.27	Most appropriate
Evaluation of the digital supervisor competency (output)	4.94	0.19	Most appropriate
Average	4.91	0.21	Most appropriate

Results of the Appropriateness Assessment of the Competency Experience-Based Training (CEBT) Model with Ubiquitous Community of Practice (U-CoP) to Enhance Transformation Digital Supervisor. It was found that the overall was at the most appropriate level ($\bar{X}$= 4.91, S.D. = 0.21), which was assessed in 3 aspects as follows:

1) The overall prevalence of the ubiquitous community of practice was at the most appropriate level ($\bar{X}$= 4.91, S.D. = 0.17).

2) The Process of Competency Experience-Based Training (CEBT) Model as a whole ($\bar{X}$= 4.88, S.D. = 0.27) was at the most appropriate level.

3) Digital supervisor competency as a whole was at the most appropriate level ($\bar{X}$= 4.94, S.D. = 0.19).

5.2 The Competency Experience-Based Training Course

The Competency Experience-Based Training course with Ubiquitous Community of Practice (U-CoP) to enhance transformation digital supervisor developed It consists of six main components: 1) Training objectives, 2) Scope of Content, 3) Training Methods, 4) Media, Technology, and Learning Resources, 5) Duration, and 6) Measurement and Evaluation. has five training objectives as follows: 1) to provide supervisors with digital literacy; 2) to provide supervisors with digital use; 3) to provide supervisors with educational uses of digital technology; 4) to provide supervisors with digital transformation leadership; and 5) to provide supervisors with digital technology ethics. Following the Competency Experience-Based Training course with Ubiquitous Community of Practice (U-CoP) to enhance transformation digital supervisor, the learning management content consists of knowledge content (knowledge: K), skill content (skill: S), and attitude content (attitude: A).Following the Competency Experience-Based Training course with Ubiquitous Community of Practice (U-CoP) to enhance the transformation digital supervisor, the training process consisted of three main processes and ten sub-steps. Training on the use of media, technology, and learning resources was the technology has a duration of 2 days of training. It is measured and evaluated with a 58-item test.

Table 2. The evaluation of develop the Competency Experience-Based Training course with Ubiquitous Community of Practice (U-CoP) to enhance transformation digital supervisor (n=21)

Details	$\bar{X}$	S.D.	The quality level
Training objectives	4.67	0.60	Most appropriate
Content scope	4.67	0.66	Most appropriate
Training methods	4.76	0.54	Most appropriate
Media, technology and learning resources	4.76	0.53	Most appropriate
Duration	4.62	0.67	Most appropriate
Measurement and evaluation	4.57	0.68	Most appropriate
Average	4.68	0.59	Most appropriate

Results of the Appropriateness Assessment of the Competency Experience-Based Training course with Ubiquitous Community of Practice (U-CoP) to enhance digital transformation supervisor found that overall the supervisor was appropriate at the highest level ($\bar{X}$= 4.68, S.D. = 0.59). Considering the assessment items, it was found that all items were appropriate at the highest level.

5.3 The Evaluation of the Digital Supervisor Competency

Comparison of the digital supervisor competency before and after the training using the Competency Experience-Based Training course with Ubiquitous Community of Practice (U-CoP) to enhance transformation of the digital supervisor

Table 3. The evaluation of the digital supervisor competency

Digital supervisor competency	n	$\bar{X}$	S.D.	t	df	p
Pre-training	40	31.08	6.12	17.198	39	.000**
Post-training	40	43.25	4.63			

p < .01**

The result of the evaluation of the digital supervisor competency was found that the after ($\bar{X}$= 43.25, S.D. = 4.63) than before training ($\bar{X}$= 31.08, S.D.= 6.12) at the .01 level.

6. Conclusion

Currently, supervisors are important because they are government personnel who are necessary to develop education. Researchers have developed Competency Experience-Based Training (CEBT) Model with Ubiquitous Community of Practice (U-CoP) to enhance transformation digital supervisor for use in training supervisors for digital competency. Such training formats and training courses have been assessed and certified by experts as being at the most appropriate level, including the assessment results. The Digital Supervisor Competencies demonstrate a great improvement in digital competences. This was because the post-training assessment results of the supervision studies using the Competency Experience-Based Training (CEBT) Model with Ubiquitous Community of Practice (U-CoP) to enhance transformation digital supervisor were higher than before the training. Therefore, this developed Competency Experience-Based Training (CEBT) Model with Ubiquitous Community of Practice (U-CoP) to enhance the transformation of digital supervisors is a process that can be applied to improve the digital competence of today's supervising educators.

7. Discussion

The Competency Experience-Based Training (CEBT) Model with Ubiquitous Community of Practice (U-CoP) to enhance Transformation Digital Supervisor consists of 3 main processes and 10 sub-steps, consisting of: The first process is training planning, consisting of 1) orientation and 2) pre-training assessment. The second process is conduct training consisting of 3) Confront, 4) Advancing, 5) Blending, and 6) Subdue and the third process is evaluating training outcomes included 7) Progress report, 8) Presentation, 9) Summary, and 10) Evaluating after training. The Competency Experience-Based Training course with Ubiquitous Community of Practice (U-CoP) to enhance transformation digital supervisor consists of 6 components: 1) Training objectives 2) Scope of content 3) Training methods 4) Media, technology and resources 5) Duration 6) Measurement and evaluation consistent with the research of (Brahmawong, 1997; Office of the Education Council, 2017; Khotphong, Hoxsuwan, & Seechaliao, 2018; Ruksasup, Boonumpai, & Hoksuwan, 2019; Swanson, 1997; Park, Pearson, & Richardson,

2017). The results of the evaluation of the digital supervisor competency of those who attended the training with the developed model using a pre-and post-training survey of 40 trainees showed that the trainees had a statistically significantly higher score on the digital supervisor competency than before training consistent with the research by Chen, Chiang, Jiang, and Yu (2017). Competency Experience-Based Training (CEBT) Model with Ubiquitous Community of Practice (U-CoP) to enhance transformation digital supervisor subjects had quite different knowledge of digital fundamentals. The foundation should be adjusted prior to the Competency Experience-Based Training (CEBT) Model with Ubiquitous Community of Practice (U-CoP) to enhance transformation digital supervisor.

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