

# Developing A Virtual Professional Learning Community To Enhance The Competencies Of Educational Technologists In Higher Education Institutions

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## ABSTRACT

Learning is of the utmost importance to human life, as it leads to human adaptability to survive and develop to prosperity, this research aims to develop a virtual professional learning community model to promote the competencies of educational technologists in higher education institutions. The samples used in the inquiry of needs were administrators of educational technology agencies and personnel in educational technology agencies, 6 institutions. The research tool was a questionnaire, and a virtual professional learning community development model to promote the competencies of educational technologists in higher education institutions. The research results were found that;

The seven elements of the academic learning community were: (1) educational Technologist, (2) community practice, (3) community goals, (4) community activities, (5) virtual support tools for communication, (6) infrastructure for online, and (7) community management. The process of implementing a professional learning community consists of 6 steps: 1) Management consists of tasks, grouping, duration, and follow-up. 2) Preparation includes an assessment of the educational technologist competency, raising awareness and trust, orientation exponential. 3) Planning consists of defining what the group will learn and work together, formulating critical issues to guide how to work together in a group, establishing a mission, vision, values, common goals, and define or search for good practice sharing practices. 4) Operation consists of presenting critical points from problems arising from work, selection of common issues, brainstorming offers a solution to a problem that comes from experience, finding out more, the discussion concludes, and selects the appropriate solution. 5) Evaluation consists of assessing the performance of compliance with the established standards, and the evaluation of the effectiveness of the management of the professional learning community. And 6) how the reflection consists of the combined results of the group and the achievement of the goals.

## Keywords

Professional Learning Community, Virtual Community, Competencies of Educational Technologists

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## Introduction

From the 12th National Economic and Social Development Plan, the strategy is based on the National Strategic Framework (2017-2036), stating the objectives related to human capital "laying the foundation for Thai people to be perfect, ethical, disciplined, good values, public mind, and happiness by having good health and good health, a warm family, as well as, being a talented person with skills, knowledge, and ability and continuous self-development throughout life." In the part of the word "capital of knowledge" It is the concept of human resource management by drawing knowledge, skills, talents, expertise, and experience, which each person has accumulated in himself to create added value of intellectual capital that can be used to create value for the organization, which results in the organization having a competitive advantage. In this case, the knowledge, skills, abilities, expertise, and experience inherent in a person are called "competencies". To promote competencies in human capital, in the past the organization has focused on and selected the tools for collecting, collecting, passing on from one generation to another in different ways. The important human capital is, teachers, professors, educational personnel, however one of the educational personnel is the educational technologists who play a role in designing and organizing innovative services, media, and technology to support teaching and learning at all levels of education,

including lifelong education. However, the development of human capital competencies in the 21st century into Knowledge Society has resulted in knowledge society becoming a valuable resource. Developing new knowledge for competition and strengthening will be a very important base of the national development process. Therefore, the promotion of professional competency is inevitable, the selection of tools must be appropriate and keep up with rapid changes.

The concept of a professional learning community has found that the professional learning community in an educational institution is more of a community than an organization. The scholars, therefore, propose to change the view of educational institutions as a formal organization to be a community, which has identified the difference between being a community and an organization that the community is connected internally by the values, ideas, and the common bond of all its members. Therefore, the community will use the influence of shared values and purpose as Professional Relationships and depend on each other in performance. In addition, an approach that can be used to create processes of knowledge exchange and knowledge acquisition and to align with the professional development of educational personnel is the Professional Learning Communities, these might be called Professional Communities, which are communities that make professionals or teachers a learning person (SiwareePhisuthsinthop. 2011). The professional learning community has evolved from an organizational strategy

aimed at adapting organizations to the rapidly changing trends of society, starting with the concept of a learning organization, and adapting to Applied to be consistent with school and institutional contexts, including cross-border professional learning (WoralakChookamnerd, EkkarinSungton, and ChawalitKerdtip. 2014) The professional learning community is a very important mechanism for the success of educational establishments to have an atmosphere of a learning society because the teachers are the creators of the culture, using the thinking skills and the use of intelligence as a base or being a person who has to use knowledge, thinking and intelligence as an essential tool in professional practice. When considering being a professional learning community, it is a community made up of tutors who are lifelong learners and tutors who are ready to build the learner's responsibility to pursue their own knowledge. And learning together all the time. This characterizes an educational institution with a lifelong learning atmosphere. However, the professional learning community is not just for teachers, but all other professions can create professional learning communities (Hord. 1997; Dianne F. Olivier and others. 2009; Ray Williams and others. 2008; Naraporn Chan-o-cha. 2017) to be an educational institution that can operate in accordance with higher education standards in the field of quality development, building a learning society, effectively and efficiently. For this reason, the researcher sees that this research will lead to the development of learning communities in higher education institutions, which will enable further modeling of the development of learning communities.

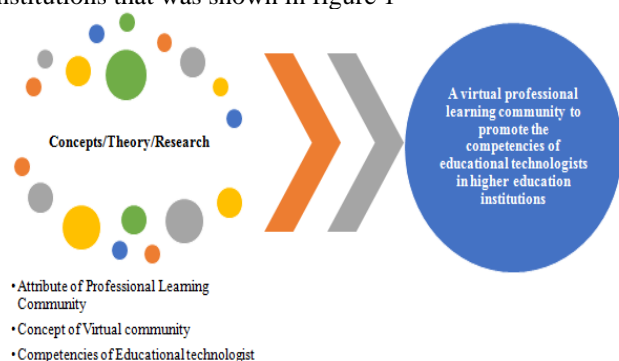
### Research objectives

This research aimed to develop a virtual professional learning community model to promote the competencies of educational technologists in higher education institutions.

### Research conceptual framework

This research is designed by using research and development in which the researcher determines the independent variables, namely

A virtual professional learning community model to promote the competencies of educational technologists in higher education institutions. The dependent variable is the competency of educational technologists in higher education institutions that was shown in figure 1



**Figure 1** Research conceptual framework

### Research Methodology

**Research form:** This research is designed as Research and Development to promote the competencies of educational technologists in higher education institutions with a virtual professional learning community.

The sample consisted of (1) the samples used in the inquiry were administrators of educational technology agencies and personnel in educational technology agencies, 6 institutes under the educational technology departments, and related agencies. (2) the sample for this experiment was 8 educational technologists in higher education institutions. And (3) the sample used in the pattern certification are nine professionals who have completed a doctoral degree or who have at least two years of relevant experience in educational technology and professional learning communities.

The study variables consisted of (1) the independent variable, which is a virtual professional learning community model to promote the competencies of educational technologists in higher education institutions. (2) The dependent variable is the competency of educational technologists in higher education institutions.

The research instruments included (1) A virtual professional learning community model to promote the competency of educational technologists in higher education institutions, which has been validated by five experts. By assessing the virtual professional learning community model assessment form to promote the competencies of educational technologists in higher education institutions. And (2) A tool for studying the effect of a virtual professional learning community model to promote the competencies of educational technologists in higher education institutions which were reviewed for suitability by five experts, namely the competency assessment questionnaire of educational technologists, the meeting record, the activity log, the satisfaction questionnaire, and the community manual. However, the concept for developing a virtual professional learning community model, the researcher applied the concept of TACTICAL STRATEGY ESTABLISH FROM THE RESEARCH BASED by SanyaKenaphoom et al (2020)

Data collection was proceeded as follows; (1) A study of the components and processes of a virtual professional learning community to promote the competency of educational technologists in higher education institutions by delivering tools to a sample of 6 colleges, consisting of Chulalongkorn University, Sukhothai Thammathirat Open University, Srinakharinwirot University, Chiang Mai University, Suranaree University of Technology, Prince of Songkla University. The sample group was the administrators of the educational technology department and personnel in the educational technology department. (2) Developing a draft model of a virtual professional learning community to promote the competencies of educational technologists in higher education institutions by examining the suitability of the models and tools from five experts in education technology or related. (3) A study of the results of using a virtual professional learning community to promote the competency of educational technologists in higher education institutions with a trial of a sample of 8 people, between March - April 2020. And (4) Accreditation of Virtual

Professional Learning Community Models to Promote Competency of Educational Technologists in Higher Education Institutions by presenting a virtual professional learning community model to promote the competencies of educational technologists in higher education institutions from 9 experts, the qualifications are as follows: Professionals with doctoral degrees or at least 2 years of relevant experience, specialists in educational technology, and professionals in the professional learning community using the brainstorming method.

Data analysis was carried out as follows: (1) Data analysis of the results of the study, composition, and process of a virtual professional learning community to promote the competencies of educational technologists in higher education institutions analyzed data using descriptive statistics. (2) The results of an assessment of the competency of educational technologists in higher education institutions before and after the use of virtual professional learning communities in competencies relevant to the professional development of educational technologists. (3) The results of data analysis in the opinion of experts in the virtual professional learning community certification stage to promote the competencies of educational technologists in higher education institutions using content analysis from expert opinion.

## Results

The research results were as follows:

1. The seven elements of the professional learning community are; (1) Educational Technologist, (2) Community practice, (3) Community goals, (4) Community activities, (5) Virtual support tools for communication, (6) Infrastructure for online, and (7) community management.
2. There are six steps to implementing a professional learning community: (1) Management includes workload framework, grouping, timing, and monitoring. (2) Preparations include Educational Technologist Competency Assessment, Reality Situation Assessment / Analysis, Demand Analysis, Raising Awareness and Trust, and Clarification Orientation. (3) Planning consists of defining what the group will learn and work together, defining critical issues to direct group collaboration, establishing mission-vision-values-common goals, and setting guidelines for sharing. Good practice, including defining and clarifying the role of group members. (4) Actions include presenting critical issues based on work-related issues, selecting common issues, brainstorming experiences-based solutions, seeking additional information, brief discussions, and choosing the right solution. (5) The assessments include assessments of performance according to established standards, and assessments of the effectiveness of managing professional learning communities. (6) The reflection consists of the common outcome of the group, and the achievement of the set goals.



**Figure 2:** A virtual professional learning community model to promote the competencies of educational technologists in higher education institutions

## Discussion

1. Development of a virtual professional learning community model to promote the competency of educational technologists in higher education institutions has 5 components as follows:

1.1 Educational technologists are members of the community: Being a member of a virtual professional learning community allows people to have different experiences in both knowledge and skills and have different unique abilities in education technology. However, members are unique in that they can interact with community members based on a small group structure, resulting in a more connected and strong community which was consistent with the study of Porter (2001); Desislava Ratcheva and others (2006) found that members of the community need to share the same concept of driving the community and have a guideline for continuous professional development, including where good and important practice for professional development is established.

1.2 Community guidelines are methods: the rules consistent with member recommendations for members to participate in interacting with creators must have a clear objective for the community first and be clearly clarified in line with the research of Wirapong Chansanam (2012); Desislava Ratcheva and others (2006) found that (1) there were four critical success factors affecting VCoP including people, purposes, policies, and computer system; (2) there were four areas for future research, including people, measurement, model and area studies. In addition, the article also presents the measurement of VCoP's success which divided into two aspects; sociability and usability. This will be used as a guideline for developing knowledge management practices in an organization by using VCoP effectively and sustainability.

1.3 Community goals: the community members need to set community goals that align with members' needs in order to collaborate in professional development that is consistent with the writing of Prapaporn Dolkit (2014); Porter (2001) and David Beer and others (2013) said that community goals are unique in the community focus, which emphasizes the content of communication between community members through communication, dialogue, and discussion leading to a way to achieve the goal.



1.4 Community activities: The design of activities and the use of tools that can promote the competencies of educational technologists in higher education institutions based on the goals and environment of the community in line with Desislava Ratcheva and others (2006) said that the objectives of the community determine the activities, the activities determine the tools that will be applied to suit the community's environment.

1.5 Virtual support tools for communication: defining and selecting tools for community members to enable collaboration, interaction, information exchange, document sharing, and archiving, and this virtual community support tool eliminates time and space constraints, in the work in accordance with the writing of Desislava Ratcheva and others (2006); Wirapong Chansanam (2012) said that communication tools are tools to facilitate members to present ideas, discuss Exchange of ideas, communication can be done in a coordinated and asynchronous manner, both public and private.

1.6 Infrastructure for online: the support structure for the implementation of activities on the part of the line to allow community managers to supervise, control, facilitate online for community members in line with Desislava Ratcheva and others (2006); Kotchapan Upparikachartpong (2009) said that collaboration facility tools or software that it uses must be easy to use, able to be used both in synchronization and asynchronously, giving communities a new and unique way of doing things which encouraging people in the community to be alert to drive the community.

1.7 Community management: It is what the members of the community meet together to study the operational guidelines that must understand the framework of the workload, the grouping, the determination of the timing of the action by the members of the management, monitoring, and Evaluation for effective community building consistent with the writings of Naraporn Chan-o-cha (2017) proposed as a guideline for implementing effective professional learning communities.

2. The development of a virtual professional learning community model to promote the competency of educational technologists in higher education institutions is divided into 3 phases: (1) Phase1: Creating a virtual professional learning community is a preparatory stage for managing the community in accordance with the guidelines laid down by the community members meeting together to understand how the community processes are implemented. Then, each member presented his own issue to address the issue that needed criticism, a way of working to lead the management of community building and implementation, and the community monitoring schedule. (2) Phase 2: The Virtual Professional Learning Community brings the learning community action planning into action, giving members the opportunity to demonstrate their leadership development abilities, giving the members the opportunity to share their experiences, discoveries, and make decisions that lead to their own choosing the right course of action for promoting good and appropriate competencies. (3) Phase3 : The Virtual Professional Learning Community Assessment is the evaluation of the competency enhancement actions of members of the learning community in accordance with the professional learning community action process of DuFour (2004) ; Missouri Department of Elementary and Secondary

Education (2015) ; Pongtip Theparee and Marut Patphol (2014) ; Montree Yamkasikorn (2017); Naraporn Chan-o-cha (2017) Community actions must be taken in stages, and can be divided into stages, to drive an educated, professional learning community, There is an exchange of knowledge among community members for continuous professional development, creating work-based learning, collaborating, and constructive discussion or criticism among community members which consists of managers and professional personnel under a common vision, mission, goals, these members will receive the support of the community and will support each other. This is to promote the learning of members and contribute to sustainable professional development.

## Suggestions

1. Suggestions for applying research results: (1) A virtual professional learning community to promote the competencies of educational technologists in higher education institutions arising from the motivation for self-improvement and self-dedication to collaboration and teamwork. (2) Learning from organizing activities promoting the competency of educational technologists in higher education institutions is the most important. In addition, the learning was born from the community action, resulting in the participation in the professional development of educational technologists to keep up with the changes arising from work and changes in the social dimension.

2. Suggestions for the next research: (1) This research was conducted only in the same tertiary institution, so cross-institutional studies should be conducted to compare the results of enhancing the competency of educational technologists at the same institution and across institutions. (2) A study of a virtual professional learning community to promote the competencies of educational technologists in higher education institutions. Target groups are educational technologists. Therefore, in further research, other competency promotion studies should be conducted to further enhance other competencies. And (3) Further education should be carried out on the same subject to see the process of developing the competency of the educational technologist and the learners' learning skills.

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