TRAINING PACKAGE DEVELOPMENT BY MODEL FOR SUPPORTING THE COMPETENCY INNOVATION AND EDUCATIONAL INFORMATION TECHNOLOGY FOR STUDENTS TEACHERS

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ABSTRACT
The purposes of this research were: 1) to develop a training package based on the TPCK Model to promote innovation competency and educational information technology for teacher students, and 2) to study the results of using a training kit based on the TPCK Model to promote competency in innovation and information technology in education for teacher students. The samples were 30 teacher students on the academic year 2022 from Chongqing University, China. The tool used to collect data was a lesson plan of TPCK model. The data were analyzed by mean, standard deviation, and Content analysis. The result showed that: 1) TPCK Model training package in order to support competency innovation and educational information Technology for student teachers adopt some TPCK Model concepts which contained Content Knowledge (CK) Pedagogical Knowledge (PK) Technological Knowledge (TK) Pedagogical Content Knowledge (PCK) Technological Pedagogical Knowledge (TPK) Technological Content Knowledge (TCK) and Technological Pedagogical Content Knowledge (TPCK) in order to apply into the training package activities. It was consisted of package training design activities design high quality materials and evaluation. The results of which were at the high level. 2) the result of self-assessment of teacher students after using the training package by TPCK Model for supporting the competency innovation and educational information were changed to after training at high level.
Keywords: The Training Package Development, TPCK Model, The Competency Innovation and Educational Information

INTRODUCTION

Today, the world places great importance on innovation and information technology because it is accepted that Innovation and information technology are important tools in developing the country in every aspect, and Chinese is aware of its importance and the necessity of bringing technology be used as a tool for national development as well. Especially in the development of the country in the area of education in order to be consistent with Provisions in the Constitution of the Chinese standards for education require the state and private sector to provide education and training to create knowledge along with morality provide laws about national education Improving education to be consistent with economic and social changes, enhancing knowledge and cultivate correct consciousness about politics and government in various fields of arts and sciences, accelerating study Preserve science and technology for national development that develop the teaching profession and promote local wisdom national arts and culture and the person The one who plays an important role in introducing innovations and technology into education is the educational workforce. The teachers or teachers themselves, together with the Teachers Council Committee have set the standards for the teaching profession that teachers to practice the teaching profession to do so, there must be knowledge standards which the knowledge standard is related to innovation and educational information technology This is a standard of knowledge that is intended for teachers who teach or who will pursue the teaching profession as teachers that has knowledge about Information technology in terms of principles, concepts and educational innovations that promote and develop the quality of learning. The competency has been defined in 3 components: 1) being able to choose, design, create and improve innovations so that students can good learning 2) Technology and information can be developed to enable students to have good learning. 3) Able to search for various learning resources to promote student learning. (Ministry of Education of the People's Republic of China, 2022). In addition, some students also provided It is suggested that students have relatively little experience in applying technology, especially in creating teaching media and not knowing the program that will be used makes it time consuming in developing the media and not having confidence in its use because of the aforementioned factors, the researchers consider that innovation competencies should be developed and educational information technology language for student teachers promote knowledge in applying technology to management. Teaching and responding to needs in an era where technology is diverse, coupled with the fact that supports organizing training to provide knowledge in technology to students. Teachers' professional experiences are therefore interested in developing bring a training set based on the TPCK Model concept. To promote competency in innovation and information technology in education for student teachers. To enable teacher students to use the knowledge and competencies gained from the course payout training is used in teaching and learning and is a preparation for teaching students to have appropriate teaching professional competencies consistent with. As specified by the Teachers Council In the future, when you become a teacher, you will be able to organize teaching and learning efficiently, making it able to respond to students in today's era of technology. The results of this research will serve as guidelines for developing training for student teachers or teachers in other areas in the future.

LITERATURE REVIEWS

Training is an important process in developing personnel within an organization or organization. Organization to enhance knowledge and skills which training refers to the learning process. One of the formats that has been organized systematically, with planning and control for individuals or groups of people Able to increase or develop competencies in various areas, including knowledge, skills, abilities, and Expertise, motivation, attitude, attitude, experience related to work as well as improving behavior at will be able to use it in their own

work as well as that of their co-workers. Make the agency or the organization has better efficiency that training refers to activities organized to enhance skills Knowledge, expertise and attitude This will cause people to change their behavior in a way that consistent with the goals of the organization and the general environment, this is to make personnel efficient. In working even more and can raise the standard of work to a higher level as well in addition, Danai Thianput (1997: 26) also gave additional meanings regarding training as follows: Training is a way to improve the ability of employees in every way to be able to work according to set standards We view training as one of the important strategies for developing our personnel other organizations as well.

From the meaning of training that academics and experts have defined, It can be synthesized that "training" means a process that is organized to increase knowledge and develop skills, expertise, abilities, motivation, attitudes, attitudes, including improvement. Work behavior of oneself and co-workers Taking into account the goals of the organization and general environment, this is to solve problems in work and various responsibilities according to the standard specified, which training is considered an important strategy that the organization should support in order to It is also a guideline for developing personnel within the organization.

Process of training

Training is the implementation of activities in a process or system and consists of various activities that has a relationship in order Episodes that are continuous, correct, appropriate and continuously to create efficiency for personnel which had educational experts present the steps. The various processes are as follows.

Wu (2014) presented interesting ideas which it shows the differences between the traditional training methods and the new training methods.

This process is consistent with what said about The process of training in The situation is similar, but there is a classification of training needs into training needs analysis and verification of needs which is different in that needs analysis is A study and analysis of problems or needs of personnel in that agency, but in terms of Needs examination is an analytical study of importance waste and chance of possibility And another part that has been added to the training process is This is to present the project to the executives which is separated into more clear steps. In addition, has proposed steps in the training process in addition to those above mentioned above There are additional techniques and methods in training to suit the participants who attend training, with a diagram showing the training process for explanation. Integrating learning into their teaching

From the steps of the training process that the researcher has studied in order to provide Training can be carried out efficiently. There is a framework for conducting training, so the training process can be facilitated in four steps, as follows: 1) setting goals for training; 2) training design; 3) training implementation 4) evaluate training results.

The meaning and details of each step can be explained as follows:

1) Setting training goals refers to the steps involved in determining training goals. Needs of the organization or individual, whether there are needs, problems, behavior, environment, things that need to be developed, or things that are missing from the organization or individual, including steps in searching for information about the group of people. The participants in the training should be aware of what groups they should be in and what needs or behaviors they should develop. The step of setting training goals is considered to be a clear demonstration. Training needs, most of which may be in the form of increasing knowledge and new ideas, skills, and work experience. To change behavior appropriately and to change attitudes to be consistent with needs, etc.

2) Training design means arranging the learning experience of the training to be consistent with the specified objectives. It helps training participants develop self-awareness. It is a set of steps.

The relationship between the training activities and the objectives set out in the content Find training and training techniques.

3) Training operations refer to the steps in actual training using techniques. Methods as specified, which at this stage are relevant, But before the training, during the training, and after Carrying out training if the training is to be effective At this stage, it should be given importance along with other components as well, such as the assistant control environment, training, materials and equipment used in training, etc. In addition, this includes facilitation. It is convenient in various forms of training as well.

4) Evaluation and monitoring of training results refers to the steps in selecting methods for evaluating the results of training to be most responsive to the objectives of the training. This is to find information about deficiencies that can be used for further development. Go to the next training, which will be evaluated. Training should be evaluated to cover all aspects of the training facilitator. Environmental equipment and other related facilities.

RESEARCH METHODOLOGY

Population and samples
The population used in this research is students in the bachelor's degree program at Chongqing University in the second semester 2 on the academic year 2022.
The sample group consisted of 30 bachelor's degree's students in Chongqing university that obtained by recruitment and willing to join the training.

Research tools
A training set based on the TPCK Model concept to promote innovation and competency educational information technology for student teachers.
A training package evaluation form based on the TPCK Model concept to promote competency in innovation and information technology in education for student teachers.
Competency assessment form for innovation and information technology in education teacher students:
Self-evaluation form after training according to the TPCK Model concept to promote competency in educational innovation and information technology for student teachers.

Data processing and data analysis
1) IOC Conformity Assessment (Index of Item: Objective Congruence
2) Find the mean and standard deviation.
3) Content Analysis

RESEARCH RESULTS

Table 1 Results of quality assessment of training packages based on the TPCK Model concept to promote competency in educational innovation and information technology for student teachers.

Evaluation list	$\bar{x}$	S.D.	Level of quality
Training package design	4.13	0.63	Good
1. Basic concepts for developing training packages	4.00	1.00	Good
2. The objectives of the training package are appropriate.	4.33	0.58	Good
3. The training plan is appropriate.	3.66	0.57	Good
4. The training period is appropriate.	4.33	0.58	Good
5. The TPCK Model concept used in the training set is appropriate.	4.33	0.58	Good
Activity design	4.06	0.70	Good
1. Each unit's training activities are appropriate.	3.66	1.15	Good
2. The duration is appropriate for the learning unit.	4.33	0.58	Good
3. Sequence of contents Find and activities are appropriate	3.66	0.57	Good
4. The use of the training manual in the activity is appropriate.	4.33	0.58	Good
5. Activities that allow trainees to learn on their own are appropriate.	4.33	0.58	Good
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3. Sequence of contents Find and activities are appropriate	3.66	0.57	Good
4. The use of the training manual in the activity is appropriate.	4.33	0.58	Good
5. Activities that allow trainees to learn on their own are appropriate.	4.33	0.58	Good
Media design	3.99	0.51	Good
1. The overall use of color is appropriate.	4.33	0.58	Good
2. Font type is appropriate	4	0	Good
3. Font and background colors the latter is appropriate	4	0	Good
4. Font size is appropriate	4	0	Good
5. Sharpness of illustrations	4.33	0.58	Good
6. Illustrations are appropriate	3.66	0.57	Good
7. Illustrations are arranged appropriately	3.66	0.57	Good
Measurement and evaluation			
Evaluation from work type is appropriate	4.33	0.58	Good
Overall average	4.07	0.29	Good

From Table 1, results of quality assessment, it is found that experts have opinions about the quality of the training package according to the TPCK Model concept to promote competency in innovation and Educational information technology for student teachers The average quality is at a good level ($\bar{X}$ = 4.07, S.D. = 0.29), which can be considered on a side by side basis as

follows: Training package design The overall average quality is at a good level ($\overline{X}$ = 4.13, S.D. = 0.63), which when considering the evaluation items, it was found that the evaluation items were of a high quality level.

Finally, there are 3 items with the same level of quality, which is to evaluate the objectives of the training set. Appropriate, the training period is appropriate and the TPCK Model concept used in the training set has the same quality level as good ($\overline{X}$ = 4.33, S.D. = 0.58), followed by concepts. Basics for developing training packages. The quality level is good ($\overline{X}$ = 4.00, S.D. = 1.00) and the assessment items with the lowest quality level were: The training plan is appropriate. The quality level is at a good level ($\overline{X}$ = 3.66, S.D. = 0.57), Activity design the overall average quality is at a good level ($\overline{X}$ = 4.06, S.D. = 0.70), which when considering the evaluation items, it was found that the evaluation items were of a high quality level.

Ultimately, 3 items had the same quality level, namely, the time period was appropriate for the learning unit. Appropriate, the use of the training manual in the activity is appropriate, activities that allow Self-learning training is appropriate and has the same level of quality as good. ($\overline{X}$ = 4.33, S.D. = 0.58). Next is that the ordering of content and activities is appropriate. ($\overline{X}$ = 3.66, S.D. = 0.57) and the evaluation item with the least quality level is Training activities each unit is suitable The quality level is good ($\overline{X}$ = 3.66, S.D. = 0.57). Media design the overall average quality is at a good level ($\overline{X}$ = 3.99, S.D. = 0.51). When considering the evaluation items, it was found that the evaluation items with the highest level of quality were The two items are of the same quality, namely the overall use of colors is appropriate and the clarity of Illustrations are of good quality ($\overline{X}$ = 4.33, S.D. = 0.58), followed by having the same quality level. The 3 items are appropriate font type, font color and background. The latter is appropriate, sized.

The letters are appropriate. The quality is at a good level ($\overline{X}$ = 4.00, S.D. = 0) and the assessment items are the lowest quality level is the illustrations are appropriate. The illustrations are arranged appropriately. The quality level is at a good level ($\overline{X}$ = 3.66, S.D. = 0.57). Measurement and evaluation the results of the quality assessment found that Experts have an opinion about the quality of the training package the quality is at a good level ($\overline{X}$ = 4.33, S.D. = 0.58).

DISCUSSION & CONCLUSION

As Developing a training package based on the TPCK Model concept to promote innovation competency and information technology in education for student teachers consists of the following formats and uses:

1) After developing a training package based on the TPCK model concept to promote competency in innovation and information technology in education for student teachers, it was found that the training sets were developed according to the TPCK model concept to promote competency in innovation and information technology. Education for student teachers. The process of the TPCK model concept was introduced, which consists of knowledge. Ability in substance Find a subject in which you have expertise (CK), knowledge and ability in theory and learning management techniques (PK), and knowledge and abilities in various technologies or software. (TK) Knowledge and ability to apply theories and techniques in learning management Subject content in which one is an expert (PCK) Knowledge and ability to use various technologies or software to apply them in accordance with theories and techniques in learning management (TPK) knowledge Ability to carry meat Find a subject in which you have expertise and apply it to teaching media. (TCK) and the integration of knowledge, technology, content, and theories and techniques in learning management. (TPCK) to be applied in carrying out the activities of the training set. Which components of the training package Consisting of:
1.1) training set assembly manual Training plan according to the TPCK model concept in each

learning unit 1.2) Training media 1.3) Evaluation tools and the evaluation results The quality of the training set is good ($\overline{X}$ = 4.02, S.D. = 0.55).

2) Results of using a training package based on the TPCK Model concept to promote competency in innovation and information technology in education for student teachers. The researcher conducted the study by dividing it into two parts as follows:

2.1) Results of the competency assessment in innovation and information technology education for student teachers after using the training package based on the TPCK Model concept, it was found that student teachers after using the training package based on the TPCK Model concept to promote innovation and competency educational information technology Overall performance is at a very good level.

2.2) Results of self-evaluation of student teachers after using the training kit according to the TPCK concept A model to promote competency in innovation and information technology in education found that students' overall performance is at a very good level.

From a research study on the development of training kits based on the TPCK model concept to promote competency in innovation and information technology in education for student teachers and researchers can follow these steps. Episodes and process development are developed by studying documents and conducting research that is relevant. Then, the information obtained will be analyzed and synthesized. To obtain information that can be used in the research, and then use the developed training package. Let the experts evaluate the quality. Get the training set. Training according to the TPCK model concept to promote competency in innovation and information technology educationally, for student teachers, the objective is to develop and study the results of using the training kit according to the TPCK model concept to promote competency in innovation and information technology. Education for student teachers. In this research, the researcher has divided the topics for discussion of the research results as follows:

1) In the development of a training package based on the TPCK model concept to promote competency in innovation and information technology in education for student teachers, it was found that the evaluation results of the quality of the training package experts are at a good level. This may be the result of extensive research. It is a system in which the researcher has studied the process of creating the training package, which should include the following steps: Which episodes and in each step? What are the components of the episode? After that, the researcher studied part of the TPCK model concept: What are its components, and how can they be applied to a set of tasks? Then, the researcher takes the information that has been studied and synthesizes it to be consistent with the set training that will create the research results.

2) Study of the results of using training kits based on the TPCK Model concept to promote competency Innovation and information technology in education for student teachers: it was found that student teachers had the competency; it's at a very good level. This may be a result of competency in innovation and information technology. Education is a necessary competency for student teachers in conducting teaching and learning. Because in today's era, technology is necessary for organizing learning. Because it can respond learning in today's era is effective, which, if analyzed in terms of performance, Innovation and information technology in education According to the important components, it will consist of Component 1 can be used to design, create, and improve innovations to enable students to learn well. It is a component that encourages student teachers to use software in designing learning media. Teach appropriately and be able to apply information technology to learning. Teaching, component 2, can develop technology and information to enable students to learn well. It is a component that encourages student teachers to analyze content. Find and arrange elements to be used in teaching media to design teaching media that support their own teaching very well. Component 3: The ability to seek out various learning resources to promote the learning of learners is a

component that supports learners in using and selecting technological resources. Information, consistent with Piyani Jitcharoen (2014), has also developed a teacher training process. Teacher networks and design ideas to strengthen teacher competencies in innovation and technology educational information with regular teachers under the Office of the Basic Education Commission (OBEC) Central Region that wants to develop competency in innovation and educational technology, with steps in organizing training that emphasize training for teachers who receive training. Practice and study by yourself. It was found that the training process that was developed resulted in the sample having scores from the teacher competency assessment. Innovation and information technology in education have increased with statistical significance at .05. Each aspect is explained as follows: Area 1: Competency in knowledge and understanding. It will make the trainees have knowledge and a greater understanding of the use of information and communication technology for education; aspect 2: Application will enable you to apply knowledge and understanding about information and communication technology. For the study to be applied to teaching and learning appropriately, Area 3: Analysis and Solving problems will enable you to use your knowledge and understanding of information and communication technology to education can be used more, leading to knowledge development.

Suggestions for using research results

Development of training packages based on the TPCK Model concept to promote competency Innovation and information technology in education for student teachers are of good quality. Therefore, it should be used in training to promote and develop competencies for students in other generations.

In carrying out activities that focus on increasing the competency of trainees, the trainees and trainees should have an agreement on the details of the assigned tasks or follow up on results after using the equipment to make it more complete in terms of evaluation.

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