

## **CHAPTER 1**

### **Introduction**

Facing the global changes which are becoming more complicated and connected, the adjustment of economic system is required for identifying the rules for trade and investment agreement and for forming of economic groups in the level of dual system and multi-party system. They influence the trend for development, including the trends for the new era of economic development that use technology-based and the knowledge-based methods for development. Thailand needs to accelerate the construction of system, mechanisms, and the human resource development that the country can adjust itself and step into the new economic system wisely and quickly. These will be strong and stable bases for reinforcing the country's capability and expanding the capability in competitive world. They can accelerate the development of human resources of the country to reach quality and sufficient numbers in respond to the growth of the Thai economy in the new decade. This acceleration requires competent and specific experts on certain fields (Pansak Rojanakat, 2007). Human resource development is considered the most important task because human resources are the necessary factor for success in country development in all aspects. Human resources development relies on education as the tool for developing human beings into physically strong body, good attitude, skills and abilities that are useful for the society and the country. Education plays not only an important role for creating and maintaining resourceful human beings but also stands as the most important tools of the country to create changes and affect societal progress (Warawat Sriyaphai 2011; Petcharee Rupavijetra, 2011; Chuchai Smithikrai, 2011; Somkid Bangmo, 2010; Manit Nakmuang, 2009; Narongwit Saentong, 2004; Chiraprapha Akaraborworn, 2006).

In the context of gradual change, some factors produce impacts to the educational progress. Persons who can be successful and exist in the society of the globalization era must be have determination, willingness to learn, creative thinking, thinking capabilities without any boundary, wisdom, and broad knowledge. They are not only building

wisdom but also knowing how to think, do, solve problem, and manage the situation. The most important is that they can create their own learning process by themselves (Vorapat Phucharoen, 2006). The past learning management reveals that the educational management is not sufficient to develop efficiently the Thais into the new life (Amornwit Nakhontap and Chulakorn Masathienwong, 2005).

From such context, the Higher Education Institute should be the leader that leads the country out of this crisis because universities are the most important educational and academic sources (Praves Vasee, 2009). Because the Higher Education Institute is the organization that produces work force in higher education level, it has four main missions which are (1) to produce and develop the work force in middle- and high-class levels, (2) to conduct research to create and develop knowledge, (3) to provide academic service to society and (4) to conserve arts and culture (Ministry of Education, 2011). The Higher Education Institute is the center of many academicians with knowledge and capability. The main important role of the Higher Education Institute is to take the leadership role during changes or to lead the drives for changes or movements of the society. This role requires the Institute to follow the roles and responsibilities of the Higher Education Institute to lead the country toward an ideal society. In the past, the universities in Thailand mainly played roles in producing graduates. The universities transferred knowledge and accumulated human resources in various businesses. Because of the changes, the necessity for using new knowledge is increasing. The knowledge must be adjusted to the new context to solve problems successfully and to develop the country appropriately and correctly to the right direction. There is necessity that the Higher Education Institute must use research in several of its roles. Therefore research is inevitably a mission of the Higher Education. The evaluation of the Office for National Education Standards and Quality Assessment (Public Organization) (ONESQA) in 2006 reveals that the research output by the faculties in Thai universities is still limited with only 0.10 titles per capita in a year. The study of Sageemas Kwanmuang (2005: Abstract) reveals that the faculty at the Higher Education produce research work at 0.4 titles per capita annually. This statistics is consistent with the study by the Office of the Education Council (2008) that reveals that the faculties at the Higher Education Level hardly produce research to develop knowledge and potential in their professional development. Such condition influences

the quality of instructional management because the faculty with research work can take part in transferring the innovation of new knowledge to their students and developing the ability in conducting research and the educational quality (Jaras Suwanwayla, 2008).

The competency development is the new concept in developing human resources. It emphasizes that the competency is the factor or the criteria for measuring the potential or the ability of the human resources, including using the components/factors for developing human beings to have quality or competency to keep up with the changes ( Arporn Puvitayaphan, 2008) . David C. McClelland ( 1 9 7 3 ) states that competency is the personality that is hidden under individuals. It can push those individuals to create good performance or to follow the identified criteria in their assigned responsibilities. Therefore, competency means the behavioral group of individuals who express and influence their performance in their own responsibilities. Competency creates successful performance according to the standardized criteria or even higher criteria. There are at least three components/factors which are knowledge, skill, and attributes or hidden qualities of individuals which are the moral values, ethics, personalities and physical qualification. The behavioral groups which will be used must be consistent with/correlate with the assigned responsibility in the personnel's position. Later, some people apply this concept by identifying the basic factors/specification of a working position. What type of basic skills, knowledge, abilities or behaviors the position requires and in what levels so that an individual can have good qualities to perform the task effectively. This responds to objectives of the organization ( Sukanya Rassametummachot, 2005) . The finding of a study of the Office of the Civil Service Commission supports the reported fact that the competency model which is used in the organizations will not only effectively enhance the personnel administration but also identify the topic of position classification and the compensation for the managers who have good performance. Therefore the model can be the tools to assist the administration to achieve the goals of the organizations.

Research competency is an important quality that needs to be developed in the personnel in all fields, especially educational personnel. If educational personnel have knowledge and abilities to conduct research, they know how to think analytically and systematically. It leads to academic development, the discovery of new knowledge, and

the resolving of problem systematically after tests for correctness based on academic principles (Suchart Prasith-rathsint, 2007; Boontham Kijpredarborisuthi, 2008; Suthiti Khattiya, 2011). The competency of the researchers consists of knowledge, attitude, and skills for research. For example, they have not only knowledge and abilities on the topic or the problem for the research but also analytical abilities, knowledge on research methodology, critical thinking ability on attitude, and quality habits. It is necessary for teachers to develop themselves as professional teachers. This development depends on research as the base for development and the guideline for systematical and reliable development of the faculty to their full potentials. Teaching staff or faculty must get support to build knowledge, understanding, and skills on research methodology for developing them as learners. The review of literature reveals that knowledge is a factor that influences the teachers' research conduction (Rungnapa Inpuwa, 2008; Udomporn Ponphoonga, 2007).

The Physical Education Institute is an educational institute in Higher Education level which is a legal entity under Ministry of Tourism and Sports. It is established by the Institute of Physical Education Act in 2005 (Royal Thai Government Gazette Book Number 1 2 2 , 2005.) The Ministerial Laws divide the governmental divisions of Physical Education Institute in 2006 into 1 7 campuses nationwide ( Royal Thai Government Gazette Book Number 1 2 3 , 2006). There is a set of instructional management in undergraduate level based on the curriculum of Physical Education Institute since 2005 under the administration of the Council of Physical Education Institute (Physical Education Institute, 2005). The mission is set as what follows.

The mission is to produce and develop personnel on physical education, sports, recreational activities, sport sciences, health sciences, and other relevant fields.

The mission of such Physical Education Institute reveals that research is the mission of the Physical Education Institute to implement because research is important mission that every faculty member has to conduct at graduate levels ( Ministry of Education, 2002). The second round of the external quality assessment of the Physical Education Institute under the Office of National Education Standard Quality Assessment (ONESQA) reports the findings that on the aspect of research work and creative work, seven campuses are under the criteria of “need improvement” while 10

campuses are in the criteria of “moderate” or “fair” ( Office for National Education Standards and Quality Assessment, 2011). The results of the third round of the external quality assurance reveal that research or creative works which get publication or distribution is in the criteria of “urgently need improvement ( Office for National Education Standards and Quality Assessment (Public Organization), 2013) . These findings are consistent with the report of the Internal Quality Educational Assessment at the institute level that shows the low number of researches that get publication (Physical Education Institute, 2013).

Therefore the faculty in the Physical Education Institute must improve themselves to the changes and need to develop their personal potentials to be appropriate for the time when changes are constant (Praves Vasee, 2009). The development of quality and efficiency in the faculty work including the knowledge must be done continuously so they can adapt to use in their performance well and efficiently. Thus the development is appropriate to the situation and responsive or consistent with the direction and policies in the long-term higher education plan. The goal written in the long-term plan until 2022 is to enhance the quality levels of Thai higher education that it can produce and develop personnel who have quality to join the labor market as well as to develop the potential of higher education to create knowledge and innovation and to enhance the abilities in competition of the country in the globalization era ( Office of the Higher Education Commission, 2007).

From the realization and understanding to give more importance to research works, the development of human resources in conducting research in several forms both in many of the short-term and long-term curricula has increased to develop researchers. Such development generally utilizes the development activities in form of training or seminar in developing researchers. The training model method, for example, is employed to cover differences in the objectives of the training model. The Physical Education Institutes typically employ the models that have been used successfully to achieve external targets ( Best Practice) , and they would apply the models to the development of researchers in each institute. The persons who manage the trainers and the problems encountered in the training sessions show that the Physical Education Institute are not successful in developing researchers in both quantitative and qualitative terms. The analysis on the models used for developing the researchers by the Physical

Education Institute at present shows that the Physical Education Institute hold the training to develop researchers without checking the trainees' needs and their knowledge on research. This lack of precision makes the contents used for the training to develop researchers are not consistent and appropriate with the participants of the training. The training sessions do not response to the trainees' needs that most of the sessions lack quality in developing researchers. In addition the Physical Education Institute promotes only the development of knowledge. Other relevant factors do not get enough support such as budgets, monitoring processes, supervision, consultation, or advice while doing research. Besides, there is no agreement that the participants must produce research work after the training is done.

From such context the model for developing the competency on the research by the Physical Education Institute needs to be consistent with the needs for development and the background knowledge of the trainees. Such models must have the monitoring process to assist the trainees, to give consultation, and to advise the trainees until the research training process is done. Besides, there must be mutual agreement in the policy level between the higher level of the training administrators and the trainees that they must produce research after the training. With this agreement the development process of researchers in the Physical Education Institute in the North achieves the objective and consistent with the strategy for producing and developing human resources in Thailand. The educational reform in the second decade between 2009 and 2018 (Office of the Education Council, 2012) is to enhance the quality levels of the faculty in order to enhance the educational strength and to response to the sustainable development of the country. The reform also responses to the policy of the Ministry of Education in developing the learners' quality through the research process and it is consistent with the guideline for external quality assessment of the Office for National Education Standards and Quality Assessment (Public Organization). The faculty of the Physical Education Institutes can use the research process to develop their learning innovation for all instructions and can present the academic research in order to get promotion to higher ranks for their progress in career.

### **Research Questions**

1. How are the context and needs for developing competencies in doing research for the faculty of Physical Education Institutes in the North?

2. What is the model for competencies for research conduction for the faculty of Physical Education Institutes in the North that has quality and effectiveness?

3. How is the effectiveness of the constructed model for competencies in research conduction for the faculty of Physical Education Institutes in the North?

### **Research Objectives**

1. To study the context and the necessity in developing the personnel's competency for conducting research in the Physical Education Institutes in the North.

2. To develop the model for developing the personnel's competency in the Physical Education Institutes in the North.

3. To study the effectiveness of the model for developing the personnel's competency for conducting research in the Physical Education Institutes in the North.

### **Research scope**

1. The context

1.1 The context on research conduction of the faculty in the Physical Education Institutes in the North in this research is composed of four aspects which are (1) on policy to promote research, (2) on the environment that supports research conduction, (3) on personnel who do research, and (4) on the amount or quantity of the research.

1.2 For the need to develop the competency to conduct research for the faculty of Physical Education Institutes in the North, this research is the study of the differences among knowledge, recent skills to do research, and the expectation to the personnel.

1.3 On the attitude toward research conduction, this research is the study of attitudes towards research conduction of the faculty of the Physical Education Institutes in the North both before the training and after submitting the research works.

1.4 The need and importance for constructing the development model for research conduction competency of the faculty in the Physical Education Institutes in the North.

2. The development model for research conduction competency for the faculty of Physical Education Institutes in the North is composed of the followings.

2.1 The importance and the needs for developing the competency for research conduction for the faculty of physical education institutions in the North are emphasized.

2.2 Quality of the model of this research is covering six components as the followings.

2.2.1 On the model's feasibility

2.2.2 On the model's appropriateness

2.2.3 On the model's adequacy

2.2.4 On the model's utility

2.2.5 On the model's agreement

2.2.6 On the model's propriety in term of ethics and morality

2.3 Components of the model

2.3.1 Components related to Input

2.3.2 Components related to Process

2.3.3 Components related to Driven Mechanism

3. On the effectiveness of the development model to build competency in research conduction of the faculty of Physical Education Institutes in the North, this research studies the model's effectiveness in the following aspects.

3.1 The appropriateness of the model



3.2 The faculty's research knowledge or the Cognitive Domain

3.3 The faculty's attitude towards research or Affective Domain

3.4 The skills for research conduction or Psychomotor Domain

### **Population of Study**

The population groups of this research are four groups of people who are classified based on the following objectives.

1. The faculty of Physical Education Institute in the North (144 people) to study the context and the needs for developing competency for research conduction of the faculty of Physical Education Institute in the North.
2. Some experts, administrators, and faculty of Physical Education Institute in the North (46 people) to check the quality of the model.
3. Faculty of physical education institution (12 people) in Lampang Campus to test the model both in the pilot study and the main study.
4. Faculty of Physical Education Institute from four campuses (16 people) to study the effectiveness of the applied development model for research conduction of the faculty of Physical Education Institute in the North.

### **Definitions of terms**

1. **Context** means the environment that relates to the research. In this study the researcher identifies the components of the context by considering the followings.

1.1 On the policy to promote research means the Physical Education Institute in the North that support, promote, and develop the competency of research conduction of their faculty members.

1.2 On the environment that supports research conduction means the Physical Education Institute in the North that provide the study sources, appoint the experts, and create the networks to support research conduction of their faculty.

1.3 The personnel in the research conduction means the faculty of Physical Education Institute in the North who are aware of the importance of having interest and cooperation in building competency in research conduction.

1.4 On the quantity of research means the number of research work, number of publication and distribution of the research, the number of the utility of the research work, and the number of research works that develop the identity of the institute.

**2. The development model for competency in research conduction of the faculty of physical education in the North** means the model that is constructed under the concept, theory and facts systematically in order to use for developing competency in research conduction which are composed of the followings.

2.1 Components of Input means the resources that need to use for implementation of the model such as internal factors which are network, policy, training kits as well as external factors which are policy, network, and National Educations Act in 2 5 4 2 Section 1 8 that identifies the government position in the higher education institute as the one that is responsible for teaching, certifying research in educational quality, and improving the faculty in the academic position into higher education levels.

2.2 Component in term of process means the implementation according to the steps identified in the model. The development model on the competency in research conduction of the faculty in the physical education institution in the North has the implementation according to the model which can be classified into three phases as the followings.

2.2.1 Planning Phase means the preparation before the training.

2.2.2 Training Phase means the techniques, methods that are used for the training and composed of two phases: (1) during the training to give knowledge on research and (2 ) during the research conduction after the training. The researcher identifies the guideline for monitoring the evaluation of the research conduction of the faculty after the training into three phases in order to monitor the progress of the research.

2.2.3 Evaluation Phase means checking the effectiveness of the model through study of the results on the developing of the competency in research conduction on Cognitive Domain, Affective Domain, and the Psychomotor Domain of the faculty.

2.3 Components related to Driven Mechanism means the process to drive cooperation toward the same direction and to direct to the goals towards development the competency in research conduction of the faculty of Physical Education Institute in the North.

**3. Competency in research conduction** means the group of behavior of the faculty during their participation in the project that shows an influence to the research conduction. Analysis on behavior measures the success of the production of research conduct training according to the standardized criteria or even higher standards (Bloom B.S., et al. 1956). The behavior group is composed of the followings.

3.1 On Cognitive Domain means the behavior of the faculty who participate in the project that expresses their levels of intellectual, knowledge, thoughts, and abilities in thinking regarding research conduct effectively.

3.2 On Affective Domain is the behavior of the faculty who participate in the project but is expressed to represent feelings, attitudes, beliefs, interests, morality, and preference regarding research conduction.

3.3 On Psychomotor Domain is the behavior of the faculty who participate in the project that indicates the abilities in conducting research effectively and the quality of research work that is also indicator for the level of research skills.

**4. The quality of the development model for the competency in research conduction** means the evaluation results of the development model for the competency in research conduction of the faculty of Physical Education Institute in the North by the experts and relevant people. The tools created by Somsak Phuvipadawat et al (2013) to apply for this purpose is composed of the standards of six aspects as the followings.

4.1 Feasibility means the development model for competency for research conduction that can be used to implement in the Physical Education Institute in the North in terms of cooperation and human resources management.

4.2 Appropriateness means the development model on the competency for research conduction as having appropriateness and consistency with the context of the faculty in Physical Education Institute in the North as well as consistency with the guideline for the educational quality assurance. There is a linkage and it can be practically implemented.

4.3 Adequacy means the development model for competency in research conduction is consistent and appropriate to the factors related to the competency development. It is composed of contents, process, monitoring and evaluation.

4.4 Utility means the development model of the competency of research conduction can provide the data that response to the need of the users of the model and relevant people. It is useful for developing the learners' quality and for assuring the educational quality.

4.5 Agreement means the faculty, administrators, and relevant actors in Physical Education Institute in the North have mutual agreement on principle target and process after the development model for competency in research conduction is accomplished.

4.6 Propriety in term of ethics, morality means a reliability that the development model for competency in research conduction may enhance the acceptance of opinion of the relevant people. It helps promote the development of educational quality and relevant people to help one another in the implementation.

**5. The need for the developing the competency for research conduction** means the differences of the means and standard deviations of the expectation and the real situation of the knowledge and skills for conducting research for the faculty of the physical education institution in the North.

**6. The effectiveness of the development model for competency in research conduction** means the judgment or consideration of the results from using the development model for competency in research conduction of the faculty of Physical Education Institute in the North, i.e., how much it can develop the competency in research conduction of the faculty through considering the evaluation outcome of each aspect as the followings.

6.1 On the cognitive domain means the results that come from the comparison of the means and standard deviation of the scores on the tests of knowledge levels before and after the development of the sample groups through the use of the achievement test constructed by the researcher and has the evaluation results of the knowledge or of cognitive domain in good or higher level.

6.2 On affective domain means the results that come from the comparison of the means and standard deviations of the evaluation results on affective domain scores before and after the training through the self-evaluation form. The evaluation form uses a rating scale constructed by the researcher and shows the result of affective domain in good level or higher.

6.3 On psychomotor domain means the results that come from the evaluation results from quality evaluation of research work of the sample groups compared with identified criteria through the evaluation form of research report (Office of the Education Council, 2009) that shows the evaluation result of the psychomotor domain in moderate and higher levels.

**7. The Physical Education Institute in the North** means the Physical Education Institutes in Chiang Mai, Lampang, Sukhothai, and Petchaboon Campuses.

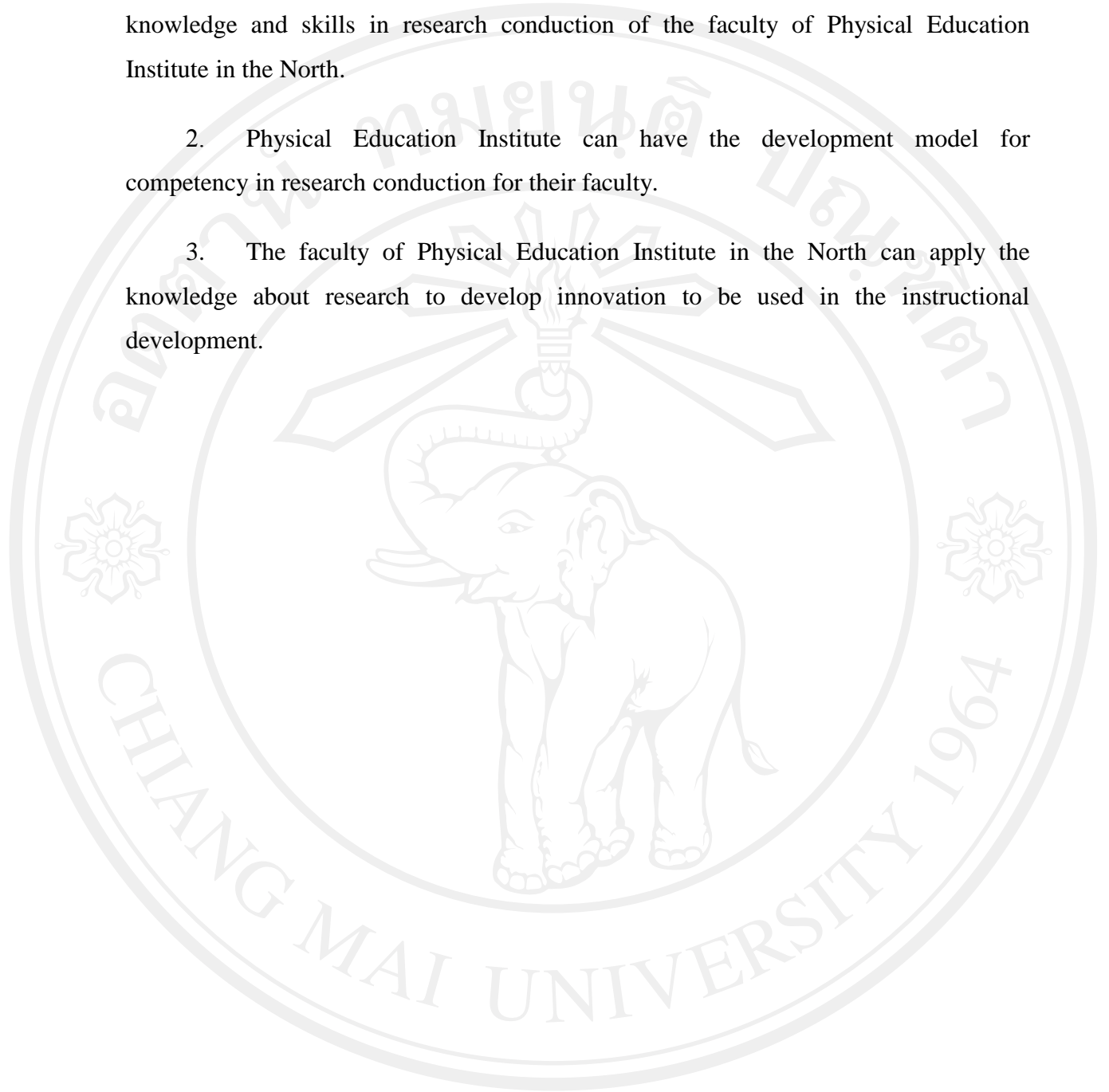
**8. The faculty of Physical Education Institute** means the persons who teach in the Physical Education Institute in the North.

### **Benefits of the Research**

1. To know about the context, expectation and the real situation, and knowledge and skills in research conduction of the faculty of Physical Education Institute in the North.

2. Physical Education Institute can have the development model for competency in research conduction for their faculty.

3. The faculty of Physical Education Institute in the North can apply the knowledge about research to develop innovation to be used in the instructional development.



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