

**THAI NGUYEN UNIVERSITY**  
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**MANAGING THE ACTIVITIES OF FOSTERING TEACHING  
COMPETENCIES FOR LOWER-SECONDARY SCHOOL  
TEACHERS IN THE NORTHERN MOUNTAINOUS REGION  
IN THE DIRECTION OF GENERAL EDUCATION REFORM**

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## **THE AUTHOR'S PUBLICATIONS RELATED TO THE DISSERTATION TOPIC**

1. Nguyen Thi Thu Thom. (2016). Managing creative experience activities at lower-secondary schools to meet the current requirements of educational innovation. *Journal of Educational Equipment*. (No. 127). p.83 - 85.
2. Nguyen Thi Thu Thom. (2016). Managing the lower-secondary school education program according to VNEN model - a new approach in modern education. *Journal of Education*. (No. 377). p.63 - 65.
3. Nguyen Thi Thu Thom. (2017). Managing activities of fostering teaching competencies for lower-secondary school teachers to meet the requirements of renovation of general education. *Proceedings of National Scientific Conference*. Thai Nguyen University Publisher. p.245-250.
4. Nguyen Thi Thu Thom. (2020). Experience in managing teaching competencies fostering activities for teachers in some countries around the world and lessons applied to Vietnam. *Journal of Education*. (No. 474). p.61-64.
5. Nguyen Thi Thu Thom. (2020). Current situation of teaching competencies and fostering teaching competencies for lower-secondary school teachers in the northern mountainous region today. *Journal of Educational Equipment*. (Special issue, July 2020). p23-26.
6. Nguyen Thi Thu Thom. (2020), The necessary teaching competencies of lower-secondary school teachers to meet the requirements of general education renovation, *Education Management Journal*, December 2020.

## INTRODUCTION

### 1. Reasons for choosing the research topic

The teaching process is a two-sided process: the teacher's teaching activity and the student's learning activity with two direct factors, the teacher and the student. Specifically, the teacher is the person who guides the organization and directs the learning and cognitive activities of students. The quality of teaching depends on the teacher's teaching competencies and pedagogical capacity. Therefore, the 2005 Education Law affirms: "Teachers play a decisive role in ensuring the quality of education".

Resolution No. 29/NQ-TW of the XI Party Central Committee on the fundamental and comprehensive innovation of education and fostering to meet the requirements of industrialization and modernization in the market economy with socialist direction and international integration has affirmed: "Strongly renovate the goals, contents and methods of fostering, refostering, fostering and evaluating the results of teachers' learning and fostering to meet the requirements of improving quality, responsibility, ethics and professional capacity... ". This shows both the belief in the teaching staff at all levels and the high expectation from the Party and the State for the teachers in the innovation of Education and Training to meet the requirements of the current general education reform.

The general education program 2018 has an open approach and a direction to develop students' competencies, integrate contents in lower grades, and deeply differentiate contents at the high school level. This poses new requirements for the required teaching competencies of teachers so that they can implement the general education program of 2018. In this context, there are new requirements for teachers on fostering and self-fostering to improve teaching competencies to meet the requirements of implementing new programs to develop qualities and capabilities for students.

Stemming from the current situation of managing the activities of fostering teaching competencies for lower-secondary school teachers (LSST) in the Northern mountainous region: In addition to the achieved results, there are still limitations that need to be overcome. Specifically: many resources and time are devoted for fostering teachers but the fostering efficiency is not high; organizing and managing to foster teaching competencies for teachers is not reasonable; the management of the plan, content, program and implementation method still have shortcomings, deviating from the requirements of the new general education program ...

Therefore, the researcher has chosen the issue: *"Managing the activities of fostering teaching competencies for lower-secondary school teachers in the Northern mountainous region in the direction of general education reform"* for the research work.

### 2. Research purposes

On the basis of theoretical research and the current situation of managing the activities of fostering teaching competencies for LSST in the Northern mountainous area in the direction of general education reform, propose measures to manage the activities of fostering teaching competencies for LSST according to the orientation of general education reform. The proposed measures aim to improve teaching competencies for teachers to meet the requirements of the new general education program.

### **3. Object and subject of research**

**3.1. Research object:** Teaching competencies fostering activities for LSST.

**3.2. Research subject:** Measures to manage the activities of fostering teaching competencies for LSST in the northern mountainous region in the direction of general education reform.

### **4. Scientific hypothesis**

Activities of fostering teaching competencies for LSST in the northern mountainous region in recent years have been paid attention to. However, facing the current requirements of the general education reform, there are still shortcomings. If proposing and implementing synchronously measures for managing activities of fostering teaching competencies based on the needs and capacity of teachers; identifying a team of core teachers to counsel and support their colleagues; organizing fostering through professional meetings; mobilizing resources for fostering; and at the same time developing a monitoring and evaluation mechanism for fostering activities, the teaching competencies of the teaching staff will be improved, meeting the requirements of educational innovation in 2018.

### **5. Research tasks**

**5.1.** Study the theoretical basis of managing the activities of fostering teaching competencies for LSST in the direction of general education reform.

**5.2.** Investigate and evaluate the current situation of managing the activities of fostering teaching competencies for LSST in the Northern mountainous region in the direction of general education reform.

**5.3.** Propose measures to manage the activities of fostering teaching competencies for LSST in the northern mountainous region in the direction of general education reform.

**5.4.** Test and experiment measures to manage the activities of fostering teaching competencies for LSST in the Northern mountainous region in the direction of general education reform.

### **6. Scope of the research**

**6.1. Research contents:** The research focuses on managing the activities of fostering teaching competencies for LSST in the northern mountainous region according to the general education program in 2018.

**6.2. Managing subjects:** The research focuses on the subjects managing the activities of fostering teaching competencies for LSST in the Northern mountainous area in the direction of general education reform: Heads of Education and Training Departments, Principals of lower-secondary schools.

**6.3. Time:** The research uses data from the school year 2016 - 2017 to the school year 2018 - 2019.

**6.4. Survey participants and research location:** The research surveyed 210 administrators, 1110 LSST in the provinces of Thai Nguyen, Tuyen Quang, Cao Bang, Yen Bai, Bac Kan, Lao Cai.

### **7. Research approaches and methods**

**7.1. Approach:** The thesis uses the following approaches: Systematic approach; Functional approach; Capacity-based approach; Practical approach.

**7.2. Research methods:** Theoretical research methods: (analysis, synthesis, comparison, systematization, generalization ...); Practical research methods: (survey by questionnaire, observation and research of product, interviews, experts); Information processing methods: (Statistical math, Microsoft Excel 2016 software, ...).

## **8. Points to be defended**

**8.1.** The general education reform in the direction of forming the quality and capacity of learners and meeting the requirements of the society has set out urgent requirements on the teaching competencies of LSST. Managing activities of fostering teaching competencies for LSST is a process of coordinating stages of planning, organizing, directing, examining and evaluating respectively to manage activities of fostering teaching competencies for LSST in the direction of general education reform. Fostering teaching competencies for LSST will improve the quality of the teaching staff to facilitate the implementation of the General Education Program in 2018.

**8.2.** The teaching competencies of LSST currently have not met the orientation of renovating the general education; the activities of fostering teaching competencies for teachers in the Northern mountainous areas still have some shortcomings, because the management of activities of fostering teaching competencies for LSST in the Northern mountainous area have not kept up with the requirements of renovating general education in terms of the content of the fostering program, the form of management and the evaluation of the fostering results.

**8.3.** In order to manage the activities of fostering teaching competencies for LSST in the northern mountainous region to meet the requirements of renovating general education effectively, it is necessary to synchronously implement measures such as: Develop and organize plans in accordance with reality, basing on the needs and capacity of implementing teaching activities of teachers; Building a team of core teachers; Strengthen fostering activities to improve teaching competencies for teachers through professional meetings; Mobilize resources and build mechanism for monitoring and evaluating activities of fostering teaching competencies for LSST in accordance with the conditions of the northern mountainous region to meet the requirements of renovating general education.

## **9. New contributions of the thesis**

**9.1.** The thesis contributes to enriching the theory of fostering teaching competencies for teachers and managing the activities of fostering teaching competencies for lower-secondary school teachers (LSST) in the direction of general education reform, hence summarizing experiences for doing practical research and proposing management measures to foster teaching competencies for LSST.

**9.2.** The thesis has analyzed and assessed the current situation of teaching competencies of LSST in the northern mountainous region, fostering activities and managing the activities of fostering teaching competencies for LSST in the northern mountainous region in the direction of general education reform; pointed out the subjective and objective factors affecting the management of activities of fostering teaching competencies for teachers; clarified the causes of the situation; established a practical basis for proposing measures to enhance the effectiveness of managing the

activities of fostering teaching competencies for LSST in the direction of general education reform.

**9.3.** The thesis has also proposed 06 measures to manage the activities of fostering teaching competencies for LSST in the direction of general education reform, including: Develop a plan for fostering teaching competencies for LSST in accordance with the reality of the Northern mountainous region in the direction of general education reform; Organize activities of fostering teaching competencies for LSST in the Northern mountainous area based on teachers' needs and capacity to perform teaching activities; Build a contingent of core teachers to advise and support their colleagues in developing teaching competencies to meet the requirements of educational innovation in lower-secondary schools in the northern mountainous region; Direct principals of lower-secondary schools to organize activities of fostering teaching competencies for teachers through professional meetings; Organize the mobilization of resources to implement fostering activities for LSST; Develop a mechanism for monitoring and evaluating the activities of fostering teaching competencies for LSST.

## **10. The structure of the thesis**

In addition to the Introduction, Conclusion, Recommendations, References and Appendices, the thesis has 3 main chapters.

### **CHAPTER 1: THEORETICAL BACKGROUND ON MANAGING THE ACTIVITIES OF FOSTERING TEACHING COMPETENCIES FOR LSST UNDER THE DIRECTION OF GENERAL EDUCATION INNOVATION**

#### **1.1. LITERATURE REVIEW**

There have been many domestic and foreign studies on refostering teachers, fostering teaching competencies for teachers and management work to improve the quality of fostering teaching competencies for teachers.

In foreign countries, there are researchers studying the issue of fostering and managing activities of fostering teaching competencies for teachers such as: Linda Darling-Hammond, Maria E. Hyler; Gerli Silm and Marios Papaevripidou; Michael Fullan, Andy Hargreaves; N.L.Bondurep; V.A.Xukhômliński ...

In the country, there are researchers studying the issue of fostering and managing activities of fostering teaching competencies for teachers such as: Nguyen Thi My Loc, Dang Quoc Bao, Dang Thanh Hung, Tran Ba Hoanh, Vu Trong Ry; Nguyen Thi Tuyet; Nguyen Huu Dung; Nguyen Thanh Binh; Tran Thi Hai Yen ...

It can be seen that the studies on the management of activities of fostering teaching competencies for LSST have been concerned by our country and other countries around the world, closely directed with many specific contents to continuously improve the quality of the teaching staff. However, the fostering management measures in the above studies just focus on the contents, forms, and methods of fostering; the management of activities of fostering teaching competencies for LSST in the context of educational innovation are not dealt with satisfactorily.

#### *Issues to be dealt with in the thesis*

Firstly, it is necessary to build up the scientific basis for managing activities of

fostering teaching competencies for LSST in the direction of general education reform.

Secondly, on the theoretical basis, it is necessary to analyze and evaluate the current state of strengths, limitations, and shortcomings; indicate objective and subjective causes of strengths, limitations, and draw lessons learned about managing activities of fostering teaching competencies for LSST in the Northern mountainous region.

Thirdly, it is necessary to propose a system of scientific measures to manage activities of fostering teaching competencies for LSST in the Northern mountainous region in the direction of reforming general education effectively, close to reality, rightly, practically and highly feasibly.

## **1.2. THE TEACHING COMPETENCIES OF LSST UNDER THE ORIENTATION OF GENERAL EDUCATION REFORM**

### ***1.2.1. The concept of competency and teaching competencies***

*1.2.1.1. Competency:* Competency is an individual psychological attribute formed and developed thanks to existing qualities and the process of learning and fostering, allowing people to mobilize a combination of knowledge, skills and other personal attributes such as excitement, belief, will ... in order to successfully perform certain activities under specific conditions.

*1.2.1.2. Teaching competency:* Teaching competencies is a combination of psychological properties through which teachers perform well teaching activities, including professional knowledge, skills, and professional skills of teachers in the teaching process and are successfully demonstrated in the form of activities in the teaching process.

### ***1.2.2. New general education program of 2012 and requirements on the teaching competencies of LSST***

#### ***1.2.2.1. New general education program of 2018***

Innovative issues that directly affect the formation and development of teaching competencies of teachers in general and LSST in particular include: educational program, educational content, educational methods, form of organizing education, educational facilities, testing and assessing educational results, ... General education reform mainly focuses on changing program objectives, contents, methods, and testing and assessment from imparting knowledge to organizing instruction, orienting students' competency development, integrated teaching, and experiential learning. That innovation has been placing new requirements for school teachers in general and LSST in particular.

#### ***1.2.2.2. Requirements on the teaching competencies of LSST***

To implement the new general education program, LSST are required to have the following teaching competencies: Develop students' competencies in a multicultural teaching environment; integrated teaching; differentiate teaching; teach through experiential activities in subjects; develop educational and teaching programs associated with the region and locality; innovate teaching methods; use teaching facilities, ethnic languages in teaching at lower-secondary schools; test and assess the development of students' competencies and qualities.

## **1.3. FOSTERING TEACHING COMPETENCIES FOR LSST IN THE DIRECTION OF GENERAL EDUCATION INNOVATION**



### ***1.3.1. The concept of fostering and fostering teaching competencies***

*1.3.1.1. Fostering:* Fostering is a learning process of each person that takes place simultaneously with professional activities, a process of fostering and self-fostering during working time, associated with the meaning of lifelong learning.

*1.3.1.2. Fostering teaching competencies:* Fostering teaching competencies: Fostering teaching competencies is an activity of educational authorities or educational institutions to supplement and improve teaching competencies for teachers on a regular basis to help them update, retrofit or gain new professional knowledge and professional skills to meet the task of teaching to meet the requirements of current general education reform.

### ***1.3.2. Characteristics of the teaching environment of LSST in the northern mountainous region***

LSST in the Northern mountainous region teach in a multicultural environment. Teachers in the Northern mountainous region are the forces directly participating in the implementation of national lower secondary education contents and programs and specific educational content. Their teaching competencies affects the quality of education for lower-secondary school students in the Northern mountainous region. They are the core force in the selection and implementation of specific educational methods suitable for students in the Northern mountainous areas. LSST in the Northern mountainous region have an important role in the stable and sustainable development of lower secondary education in the Northern mountainous region.

### ***1.3.3. The elements of fostering teaching competencies for LSST in the direction of general education reform***

The elements of fostering teaching competencies for LSST in the Northern mountainous region in the direction of renovating general education include: Fostering goals; Fostering contents; Fostering method; Organizational form of fostering; Facilities, equipment for fostering; Testing and assessing fostering results.

## **1.4. MANAGING THE ACTIVITIES OF FOSTERING TEACHING COMPETENCIES FOR LSST IN THE ORIENTATION OF GENERAL EDUCATION INNOVATION**

### ***1.4.1. The concept of management, educational management, managing the activities of fostering teaching competencies for LSST***

*1.4.1.1. Management:* Management is a system of planned, purposeful, organized impacts of the managing subjects on the managed objects in order to achieve management objectives set out.

*1.4.1.2. Managing the activities of fostering teaching competencies for LSST:* Managing the activities of fostering teaching competencies for LSST is the process in which educational managers apply knowledge of management science and characteristics of lower secondary education to implement activities of fostering teaching competencies for LSST, affecting the functions of the management process and the close relationship between them in order to improve teaching competencies for LSST.

### ***1.4.2. The role of Heads of Education and Training Departments and Principals in managing the activities of fostering teaching competencies for LSST in the direction of general education reform***

- *The role of Heads of Education and Training Departments:* As the head of the education management agency at the lower secondary level, the Head of the Education and Training Department is responsible for leading the development of the plan and submitting to the District People's Committee the plan of fostering the contingent of LSST in accordance with the fostering orientation and policy of the Ministry of Education and Training and the Department of Education and Training ...

- *The role of Principals of Secondary School:* being the leader, responsible for all activities of developing the contingent of LSST ...

### ***1.4.3. Contents of managing the activities of fostering teaching competencies for LSST in the direction of general education reform***

#### ***1.4.3.1. Make plans to foster teaching competencies for LSST in the direction of general education reform***

Making plans for fostering teaching competencies for teachers is a basic content of management activities. It ensures that the management process is carried out in a scientific and systematic way, with strict logic, and consistent with the current direction of innovating educational management, and at the same time, helping the activities of fostering teaching competencies for LSST take place with quality, achieve optimal efficiency and serve as orientation for all activities.

#### ***1.4.3.2. Organize the implementation of the plan for fostering teaching competencies for LSST in the direction of general education reform***

Organizing fostering is to establish relationships between people and people, between separate parts into a system that works smoothly as a unified body. In educational management and school management, the most important thing about organization is to clearly define the role and position of each individual, each member, each department, ensuring the linkage. among individuals, members, departments to create unity and consistency - a factor to ensure success in organizing fostering teaching competencies for LSST.

#### ***1.4.3.3. Direct the implementation of the plan for fostering teaching competencies for LSST in the direction of general education reform***

Directing is the process of guiding the implementation, monitoring, motivating and motivating members to work in the best way for the benefit of the organization. Direction is essentially the actions to establish the command and the intervention of the leader in the entire management process, which is the mobilization of forces into the implementation and operation of the activities to accomplish the set plan. It is considered as the "implementation" process of the outlined plan.

#### ***1.4.3.4. Examine and evaluate the implementation of the plan for fostering teaching competencies for LSST in the direction of general education reform***

Checking is the process of gathering information about the implementation of a given plan; meanwhile assessment is a comparison between the current performance level and the set goals. Examining and evaluating activities of fostering teaching competencies for LSST is to evaluate the effectiveness and control and adjust errors (if any) in the process of fostering teaching competencies for LSST.

## **1.5. FACTORS AFFECTING THE MANAGEMENT OF THE ACTIVITIES OF FOSTERING TEACHING COMPETENCIES FOR LSST IN THE DIRECTION OF GENERAL EDUCATION REFORM**

**1.5.1. Subjective factors:** *The capacity of educational administrators; The capacity of fostering lecturers; The fostering needs of LSST participating in fostering activities.*

**1.5.2. Objective factors:** *Socio-economic conditions in the locality; The management mechanisms and policies of the State and Ministry on fostering teaching competencies for LSST; Facilities and conditions for fostering activities*

## **CHAPTER 2: THE CURRENT SITUATION OF MANAGING THE ACTIVITIES OF FOSTERING TEACHING COMPETENCIES FOR LSST IN THE NORTHERN MOUNTAINOUS REGION IN THE DIRECTION OF GENERAL EDUCATION REFORM**

### **2.1. OVERVIEW OF THE STUDY LOCATION**

#### **2.1.1. Natural, economic, cultural - social conditions**

The natural, economic, socio-cultural conditions of the Northern mountainous region are difficult compared to other regions in the country. This is also one of the less favorable factors causing limitations and shortcomings in the fostering LSST in general and fostering teaching competencies for LSST in particular in the direction of general education reform ; for example, lack of fostering resources; the contingent of LSST is scattered, fragmented, spread out, difficult to gather, and difficult to access information. Therefore, in order to develop a contingent of LSST and improve the teaching competencies for this team, the Party, the State, and the state management agencies in education need to pay special attention to scientific research in all aspects of the region, on the basis of which there are appropriate mechanisms and policies, especially investment policies, policies to train and foster a contingent of LSST and foster appropriate teaching competencies for LSST in accordance with regional conditions.

#### **2.1.2. An overview of lower-secondary education in the northern mountainous region**

Over the past years, with the attention of the Party and State, along with the efforts of the people of all ethnic groups, the Northern mountainous region has achieved new developments in many fields, including education and fostering. The infrastructure system of the schools at commune and district levels has been significantly strengthened and become the nucleus for the movement of building a new countryside and culture in the mountainous areas. The team of teachers has been gradually developing in both quantity and quality.

Given the current situation of lower secondary education and fostering in the northern mountainous region, improving the quality of education to create quality human resources for economic, cultural - social development is the core issue that needs attention of Party committees and authorities at all levels from central to grassroots levels.

According to the statistics of Departments of Education and Training on the contingent of LSST in 6 northern mountainous provinces for 4 school years (from school year 2015-2016 to school year 2018-2019), the number of teachers in the provinces changed annually. In particular, the number of teachers in the region tends to decrease. The proportion of teachers from ethnic minorities is not really significant. These indicators show a fairly uniform level of expertise of teachers

among the provinces in the region.

## 2.2. ORGANIZATION OF THE CURRENT SITUATION INVESTIGATION

With the purpose of assessing the current situation of teaching competencies of LSST, the current situation of fostering and managing fostering activities for LSST in the northern mountainous area to develop a practical basis for proposing measures to manage activities of fostering teaching competencies for LSST in the direction of general education reform. In the thesis, the researcher selected 90 schools to survey 1320 people, of which educational managers: 210 people, LSST: 1110 people from 06 provinces representing the provinces of the northern mountainous region.

## 2.3. RESULTS OF THE SURVEY ON THE CURRENT SITUATION

### 2.3.1. Current situation of teaching competencies of LSST in the Northern mountainous region in the direction of general education innovation

**Table 2.3. Assessment of administrators and teachers on the status of teachers' achieved teaching competencies in the Northern mountainous region**

No.	Teaching competencies	Teacher			Managers			General		
		$\Sigma$	$\bar{x}$	Order	$\Sigma$	$\bar{x}$	Order	$\Sigma$	$\bar{x}$	Order
1	Competence 1	1336	1.20	14	293	1.40	12	1629	1.23	13
2	Competence 2	2219	2.00	9	420	2.00	9	2639	2.00	9
3	Competence 3	1781	1.60	11	274	1.30	13	2055	1.56	11
4	Competence 4	1448	1.30	12	296	1.41	11	1744	1.32	12
5	Competence 5	1338	1.21	13	251	1.20	14	1589	1.20	14
6	Competence 6	1274	1.15	15	231	1.10	15	1505	1.14	15
7	Competence 7	2994	2.70	6	567	2.70	6	3561	2.70	6
8	Competence 8	4001	3.60	1	799	3.80	1	4800	3.64	1
9	Competence 9	1999	1.80	10	377	1.80	10	2376	1.80	10
10	Competence 10	3889	3.50	2	776	3.70	2	4665	3.53	2
11	Competence 11	2896	2.61	7	545	2.60	7	3441	2.61	7
12	Competence 12	3774	3.40	4	714	3.40	4	4488	3.40	4
13	Competence 13	3113	2.80	5	631	3.00	5	3744	2.84	5
14	Competence 14	2883	2.60	8	545	2.60	7	3428	2.60	8
15	Competence 15	3881	3.50	3	736	3.50	3	4617	3.50	3
<b>Average Score</b>		<b>2.33</b>			<b>2.33</b>			<b>2.37</b>		

(Competence 1: Designing lessons in the orientation of developing students' competence and quality; Competence 2: Lesson research; Competence 3: Designing and organizing integrated teaching topics; Competence 4: Designing and organizing differentiated teaching skills; Competence 5: Designing and organizing teaching through experiential activities; Competence 6: Designing and organizing STEM teaching; Competence 7: Selecting and coordinating teaching methods in the orientation of developing students' capacities; Competence 8: Choosing the form of teaching organization suitable to the specifics of the subject and student's

characteristics; Competence 9: Evaluating the learning results of students in the orientation of developing students' capacities; Competence 10: Developing school education plans and subject plan; Competence 11: Counseling and supporting students' learning activities; Competence 12: Using effectively teaching means and techniques; Competence 13: Applying IT in teaching; Competence 14: Using foreign languages and ethnic language to support teaching activities, self-study; Competence 15: Monitoring and managing the learning process of students).

The results show that the number of teaching competencies which are evaluated "SATISFIED" by both teachers and administrators is very small (Average score from 1.14 to 1.23). These competences include: "The capacity to design and organize teaching in the direction of STEM education", "The capacity to design and organize teaching through experiential activities", "The capacity to design lessons in the direction of developing the capacity and quality of students".

The capacities such as "Building school education plans and subject plans", "Selecting the form of teaching organization suitable to the specifics of the subjects and student's characteristics", "Counseling and supporting students' learning activities"... were evaluated at a good level. These are all basic teaching skills of LSST and are the results of their professional fostering efforts.

### ***2.3.2. The current situation of fostering teaching competencies for LSST in the northern mountainous region in the direction of general education reform***

#### ***2.3.2.1. The actual situation of the goals of fostering teaching competencies for LSST***

The survey results show that the overall average score of the evaluation on managers' and teachers' awareness of the goals of fostering teaching competencies for LSST in the Northern mountainous region is 3.95. The average scores ranged from 3.89 to 4.02, proving that the evaluation level of the contents was not equal. However, these scores are all high, which shows that managers and teachers both have a high level of awareness of the necessity of the goal of fostering teaching competencies for LSST. Thus, although the survey results show the perception that the goals of fostering teaching competencies for LSST are assessed at a high level, they have not really followed closely with the subjects of fostering, fostering needs and the quality of education of the school.

#### ***2.3.2.2. Current status of the contents of fostering teaching competencies for LSST in the northern mountainous region in the direction of general education reform***

The survey results show that the teaching competencies which have been fostered regularly for teachers are: Select the form of teaching organization suitable to the specific subject's characteristics and student's characteristics (Average score: 3.83); Monitor and manage the learning process of students (Average score: 3.81), Efficiently use teaching facilities and techniques at secondary schools (Average score: 3.62). This shows the interest of managers in fostering teachers, and also gives similar results with the survey of teaching competencies, where the majority of teachers are rated quite well in these competencies. To do well the management of teacher fostering, it is necessary to have a comprehensive fostering plan; study the limited teaching skills, the causes of those limited weaknesses ...; analyze the appropriate conditions (in terms of facilities,

resources, benefits ...) of each fostering program to guide and implement synchronously, effectively and thoroughly. Avoid the style of "riding a horse to see flowers", fostering for enough jobs, for "yes"; it is necessary to put emphasis on efficiency, practical value as well as evaluation of fostering results.

#### *2.3.2.3. The reality of the methods of fostering teaching competencies for LSST*

*The evaluation of teachers and managers is quite similar with the rating from 3.18 to 3.23. In addition to the two "Very Frequent" methods used in the fostering programs are the presentation method (ranked 1, with Average score 4.6) and oral inquiry (ranked 2 with Average score 4.4); The methods "Very rarely used" are the practice methods (Rank 8, Average score: 1.81), and methods of modeling and imitation (ranked 9th, Average score: 1.80).*

*The results show that the use of the fostering method revealed a number of difficulties and shortcomings in the implementation of the activity, affecting more or less the efficiency and quality of the fostering. If teachers are more explicit through methods such as practice, modeling, and imitation, the effectiveness of the fostering programs will be enhanced.*

#### *2.3.2.4. The current situation of the forms of organizing fostering teaching competencies activities for LSST*

With the overall average score through the survey is 3.20 (with teachers 3.19 management staff is 3.23), this result shows the diversity of forms of fostering teaching competencies for teachers in the Northern mountainous area today. However, many forms of fostering have not been used effectively, have not been fully exploited in line with the current IT development conditions such as online fostering, distance fostering, and seminars to share teaching methods, observation and professional meetings.

#### *2.3.2.5. The reality of facilities, equipment, and materials for fostering teaching competencies for LSST*

Survey results show that the assessment of managers and teachers on the status of facilities, equipment, and documents serving the fostering of teaching competencies for LSST in the Northern mountainous region is not universal, particularly with average score of 2.8 to 4.02. Survey results on the current status of facilities, equipment, and documents on fostering teaching competencies for LSST in the Northern mountainous region are assessed at a low level such as "IT infrastructure for fostering" with Average score of 2.8 (ranked 4th out of 4). Based on the scale in most evaluation criteria, it shows that the use of facilities, equipment, fostering materials has not brought into full play effectiveness as well as there are shortcomings in fostering.

#### *2.3.2.6. The status of examining and evaluating the results of fostering teaching competencies for LSST*

*The above results show that the assessment of managers and teachers on testing and evaluating the results of fostering teaching competence for LSST in the northern mountainous region has an overall rating of 2.67, of which managers rated at 2.89, teachers rated at 2.63. Forms of testing and evaluating the results of fostering are at a low level of performance, have not brought into full play the effectiveness in fostering teaching competencies for LSST in the Northern mountainous region.*

**2.3.3. Current situation of managing the activities of fostering teaching competencies for LSST in the Northern mountainous region in the direction of general education reform**

**2.3.3.1. The status of building plans for fostering teaching competencies for LSST**

**Table 2.10. Current situation of building plans for fostering teaching competencies for LSST in the northern mountainous region**

No.	Contents	Teachers			Managers			General		
		$\Sigma$	$\bar{X}$	Order	$\Sigma$	$\bar{X}$	Order	$\Sigma$	$\bar{X}$	Order
1	Surveying the needs of fostering teaching competencies of teachers	4002	3.61	3	771	3.67	3	4773	3.62	3
2	Determine requirements for teaching competencies of teachers to implement the General Education Program 2018	2881	2.60	8	552	2.63	7	3433	2.60	8
3	Determine requirements for teaching competencies according to the professional standards of teachers	2232	2.01	9	419	2.00	10	2651	2.01	9
4	Identify teaching development trends in the world and the region	3909	3.52	5	754	3.59	5	4663	3.59	4
5	Define the goal of fostering teaching competencies for teachers	4438	4.00	1	856	4.08	1	5294	4.01	1
6	Develop programs for fostering teaching competencies for teachers	2219	2.00	10	423	2.01	9	2642	2.00	10
7	Determine the form of fostering	3969	3.58	4	755	3.60	4	4724	3.58	5
8	Determine the time and location of the fostering	4389	3.95	2	847	4.03	2	5236	3.97	2
9	Anticipate results to be achieved in the fostering activities	1864	1.68	11	402	1.91	11	2266	1.72	11
10	Anticipate resources (human, financial, material) for the fostering activity	3134	2.82	6	595	2.83	6	3729	2.83	6
11	Develop a plan to combine forces in activities of fostering teaching competencies for teachers	2938	2.65	7	547	2.60	8	3485	2.64	7
<b>Average Score</b>		2.95			3.00			2.96		

The survey results in the table above show that among the contents of building fostering plans, some contents are assessed at a regular and very regular performance level for both teachers and administrators (from 3.58 to 4.01, ranked from 1 to 5).

There are contents rated as "low pass" such as: Determining requirements of teaching competencies according to the professional standards of teachers, Developing programs for fostering teaching competencies for teachers at all management levels. The content that the managers and teachers evaluate "Not satisfactory at all" is: Anticipate results needed to be achieved in fostering teaching skills for LSST (Average score: 1.72, ranked 11/11).

Thus, the development of a plan to foster teaching competencies for LSST in the northern mountainous region has many shortcomings, not ensuring a "deep" plan in terms of expertise and "comprehensive" in terms of management. Therefore, it has not brought into play all the effectiveness in planning the fostering of teaching competencies for LSST in the northern mountainous region according to the orientation of renovating general education.

*2.3.3.2. The real situation of organizing the implementation of teaching competencies fostering activities for LSST*

**Bảng 2.11. Current situation of organizing the implementation of teaching competencies fostering activities for LSST**

No.	Contents	Teachers			Managers			General		
		$\Sigma$	$\bar{X}$	Order	$\Sigma$	$\bar{X}$	Order	$\Sigma$	$\bar{X}$	Order
1	Establish a Steering Committee to organize fostering	4331	3.90	2	817	3.89	1	5148	3.90	1
2	Develop regulations on organization of fostering activities	4337	3.91	1	801	3.81	3	5138	3.89	2
3	Design fostering program	2999	2.70	4	582	2.77	4	3581	2.71	4
4	Mobilize resources and infrastructure for fostering work	2922	2.63	6	565	2.69	5	3487	2.64	5
5	Build a team of reporters	2048	1.85	8	394	1.88	8	2442	1.85	8
6	Compile fostering materials	2230	2.01	7	431	2.05	7	2661	2.02	7
7	Choose the form of fostering organization	4236	3.82	3	809	3.85	2	5045	3.82	3
8	Develop standards for evaluating fostering results	2043	1.84	9	387	1.84	9	2430	1.84	9
9	Develop a mechanism to monitor and evaluate the implementation of the fostering plan	2928	2.64	5	553	2.63	6	3481	2.63	6
<b>Average Score</b>		<b>2.81</b>			<b>2.82</b>			<b>2.81</b>		

The above results show that the contents evaluated by both teachers and administrators at a good level are "Build a steering committee for organizing fostering" (Average score: 3.9, ranking 1), " Develop regulations on organization of fostering activities" (Average score: 3.89, ranked 2nd), " Select the form of fostering organization" (Average score: 3.82, ranked 3rd). Some contents achieved a low evaluation level, such as Compile fostering materials (Average score: 2.02 ranked 7th), Build a force of reporters (Average score: 1.85, ranked 8th), Develop standards



for evaluating fostering results (Average score: 1.84, ranked 9/9).

The implementation of the plan for fostering teaching competencies for teachers has not achieved good results; the work of building a team of reporters and building a standard to evaluate the fostering results are issues that need to be changed.

*2.3.3.3. Current situation of directing the implementation of activities for fostering teaching competencies for LSST*

**Table 2.12. Current situation of directing the implementation of activities to foster teaching competencies for LSST in the Northern mountainous region**

No.	Contents	Teachers			Managers			General		
		$\Sigma$	$\bar{X}$	Order	$\Sigma$	$\bar{X}$	Order	$\Sigma$	$\bar{X}$	Order
1	Direct the survey and assessment of teaching competencies of teachers	4427	3.90	1	801	3.81	2	5128	3.88	1
2	Direct the determination of fostering needs	4251	3.83	2	807	3.84	1	5058	3.83	2
3	Direct the development of fostering contents and programs	3114	2.81	5	607	2.89	3	3721	2.82	5
4	Direct the compilation fostering materials	2938	2.65	6	551	2.62	6	3489	2.64	6
5	Direct and choose the methods of fostering	3193	2.88	3	597	2.84	4	3790	2.87	3
6	Direct the implementation of the approved fostering program contents	2904	2.62	7	549	2.61	7	3453	2.62	7
7	Direct and supervise fostering activities	2346	2.11	8	483	2.30	8	2829	2.14	8
8	Direct the selection of reporters, fostering the capacity of reporters	2100	1.89	10	407	1.94	10	2507	1.90	10
9	Ensure the conditions for fostering activities	2290	2.06	9	435	2.07	9	2725	2.06	9
10	Direct the implementation of policies for teachers to participate in fostering	3169	2.85	4	587	2.80	5	3756	2.85	4
<b>AVERAGE SCORE</b>		<b>2.76</b>			<b>2.77</b>			<b>2.76</b>		

Among the instructional contents, there are 02 contents that are assessed as being regularly performed, that is: "Direct survey and assessment of teaching competencies of teachers", "Direct the determination of fostering needs". However, there are also some guiding contents which also evaluated at a low level by both managers and teachers, "achieving a little" such as the content "Directing the monitoring of fostering activities", "Ensuring the conditions for the fostering activities", "Selection of reporters, fostering the capacity of reporters" (Average score: 1.9, ranked 10/10).

The work of directing the implementation of activities of fostering teaching competencies for LSST in the Northern mountainous region still has certain limitations in some stages, some guiding contents. Finding out the causes and finding solutions to overcome the current situation will have an important meaning to improve the quality of managing teacher fostering activities in general and managing fostering teaching skills for teachers in particular to meet the demand for educational innovation.

*2.3.3.4. Current situation of examining and evaluating the results of teaching competencies fostering activities for LSST*

**Table 2.13. Current situation of examining and evaluating the results of implementing the plan to improve teaching competencies for LSST in the Northern mountainous region**

No.	Contents	Teachers			Managers			General		
		$\Sigma$	$\bar{X}$	Order	$\Sigma$	$\bar{X}$	Order	$\Sigma$	$\bar{X}$	Order
1	Examine and evaluate the work of building fostering plans	2938	2.65	1	551	2.62	2	3489	2.64	1
2	Examine and evaluate the organization of fostering activities	2855	2.57	2	518	2.47	5	3373	2.56	2
3	Examine and evaluate the implementation of the fostering directions	2682	2.42	4	546	2.60	3	3228	2.45	4
4	Check the results of the fostering results evaluation	2704	2.44	3	545	2.60	4	3249	2.46	3
5	Use assessment results to adjust fostering plans	2652	2.39	5	553	2.63	1	3205	2.42	5
<b>AVERAGE SCORE</b>		<b>2.49</b>			<b>2.58</b>			<b>2.51</b>		

The above results show that the evaluation of managers and teachers on testing and evaluating the results of the implementation of the plan on fostering teaching competencies for LSST in the Northern mountainous region is still at an average level with most of the criteria being evaluated at the "Satisfied" level. This is reflected in the evaluation results with the overall average score of 2.42 to 2.64 points for both teachers and administrators.

Examining and evaluating the results of fostering teaching competencies for LSST in the Northern mountainous region still has certain limitations. The majority of comments said that inspection and evaluation activities have not been effective in management, sometimes just administrative pressure, making inspection and evaluation only superficial, and this even causes unpleasant psychology for teachers when participating in fostering. Therefore, it is necessary to put the inspection and evaluation of the fostering results to ensure professionalism, efficiency, as a reliable basis for the adjustment of the plan, organization and direction of fostering, helping managers at all levels perform the management functions more effectively.

#### *2.3.4. Current situation of factors affecting the management of teaching competencies fostering activities for LSST in the Northern mountainous region in the direction of general education reform*

Among the objective factors, the factor that is considered to have the most influence is: "Mechanism and policy for teachers when participating in fostering" with an average score of 3.49. The next two factors are assessed as having influence at an average level for the management and fostering are "Socio-economic conditions" (Average score: 2.6, ranked 3rd) and "Conditions of infrastructure, IT infrastructure to serve fostering" (Average score: 2.87, ranked second). However, through analysis, we found out that the subjective factors are the ones that have the most decisive influence on the fostering management.

### **2.4. GENERAL ASSESSMENT ON THE CURRENT SITUATION OF THE MANAGEMENT OF TEACHING COMPETENCIES FOSTERING ACTIVITIES FOR LSST IN THE NORTHERN MOUNTAINOUS REGION IN THE DIRECTION OF GENERAL EDUCATION REFORM**

#### ***2.4.1. Achievements***

Training activities have focused on the key goals of professional work in schools; The content of the fostering has been deployed with many rich teaching skills, generalizing many issues of teaching and learning activities of teachers and students; Methods and forms of fostering are mainly implemented according to traditional methods and forms of organizing fostering. Facilities, equipment and fostering materials have been used well in the context of many difficulties; Has mobilized a contingent of LSST and administrators who are directly and indirectly involved in evaluating the results of fostering in many diverse forms.

Management of fostering activities: we have determined that the management plan development is one of the key tasks, giving measures and how to organize and implement the plan, the direction of the managing entities. Fundamental theory has been implemented seriously and in a timely manner, applying various methods of inspection and evaluation.

#### ***2.4.2. Shortcomings and difficulties***

The fostering activities have not closely adhered to the requirements of the General Education Program in 2018, only focused on basic teaching competencies, not focused on other capacities that are increasingly demanding of each teacher. Mainly using traditional and popular fostering methods, still concentrated on a large number of teachers in fostering. Online fostering without conditions for wide deployment, limited in infrastructure and information infrastructure, documents, materials, forms of testing, evaluation; have not yet tested the skills and techniques of teachers participating in fostering.

Management of fostering activities: have not yet planned closely with the needs of professional fostering of LSST; there is no rhythmic coordination between departments and individuals; directing is not really regular, throughout; inspection and assessment are still heavy in terms of form, assessment is not really objective ...

#### ***2.4.3. Causes of shortcomings and difficulties***

The management subjects are confused, do not have much experience, knowledge and skills to develop plans for fostering teaching competencies for LSST; The needs and necessary teaching competencies of teachers in the Northern mountainous region have not been identified; Has not yet promoted the role of the core faculty, which is the core force to deploy the work of the school; The management subjects have only been able to apply some traditional forms of fostering organization but have not focused on modern forms of organization; The elements of material foundations, technical infrastructure of lower secondary education in the northern mountainous region are lacking, not synchronous; The management subjects have not yet developed a mechanism to monitor and evaluate the activities of fostering teaching competencies for LSST in a scientific manner, suitable with the practical situation of the Northern mountainous region.

### **CHAPTER 3: METHODS OF TEACHING COMPETENCIES MANAGEMENT FOR HIGH SCHOOL TEACHERS IN THE NORTHERN REGION NORTHERN REGION OF GENERAL EDUCATION INNOVATION**

#### **3.1. PRINCIPLES TO PROMOTE MEASURES**

Ensure the legality; target calculation; practicality; inheritance; possibility; synchronism.

#### **3.2. MEASURES FOR MANAGING THE ACTIVITIES OF FOSTERING TEACHING COMPETENCIES FOR LSST IN THE NORTHERN MOUNTAINOUS REGION IN THE DIRECTION OF GENERAL EDUCATION REFORM**

***3.2.1. Develop a plan to foster teaching competencies for LSST in line with the reality of the northern mountainous region in the direction of general education innovation.***

Develop a plan to define the target system, the content of the activities, the necessary measures to achieve the purpose of fostering teaching competencies for teachers according to career standards of LSST and the orientation of renovating general education.

Develop the competence of self-study and self-fostering, self-evaluating the fostering effectiveness; The capacity to organize and manage self-study and self-fostering activities.

***3.2.2. Organize the fostering of teaching competencies for LSST based on the needs and capacity of teachers to perform teaching activities***

Organizing the implementation of activities of fostering teaching competencies for LSST in the Northern mountainous region based on the needs and capacity to implement teaching activities of the teachers is the work carried out after planning to transform the goals of fostering LSST set out in the plan. Thanks to that, creating a relationship between the management agencies, lower-secondary schools, and related divisions in fostering teaching competencies for teachers, incorporating them into a unified and close apparatus; This helps the manager better coordinate resources to serve the fostering teaching competencies for LSST in the northern mountainous region based on the needs and capacity of teachers to perform teaching activities.

***3.2.3. Build a contingent of core teachers to support their colleagues to develop teaching competencies to meet the requirements of educational innovation***

### ***in lower-secondary schools in the Northern mountainous region***

Build a contingent of core teachers in accordance with the educational characteristics of secondary schools in the northern mountainous region; foster and improve the capacity of the core teachers to create an influence of this contingent on all teachers.

Create a working environment for key teachers to improve their competencies and carry out activities to support colleagues in developing teaching competencies to meet the constant innovation requirements of lower secondary education in the Northern mountainous area.

#### ***3.2.4. Direct the principals of lower-secondary schools to strengthen the organization of fostering and enhancing teaching competencies for teachers through professional activities***

The Head of Education and Training Department directs the principals of secondary schools to guide professional groups through professional meetings according to new teaching topics, difficult lessons, and basic research; professional meetings on renewing teaching content, designing lesson plans; innovating methods and forms of teaching organization such as integrated teaching methods, differentiated teaching, STEM-oriented teaching, ... and innovating testing and evaluating teaching results, helping teachers to improve teaching competencies to meet the requirements of teaching and education innovation.

#### ***3.2.5. Organize the mobilization of resources to carry out fostering activities for LSST***

To ensure improving the quality of fostering teaching competencies for LSST, one of the very important things is that Heads of Education and Training Departments and Principals need to increase investment, mobilize all resources, create the best conditions for necessary resources; be able to have human and material resources for the highly effective fostering of teaching competence.

Complete policies and policies, encourage to create motivation for the development of teachers' staff, making teachers feel secure in their work; uphold the sense of responsibility in teaching, self-fostering, contributing to education.

#### ***3.2.6. Develop a monitoring and evaluation mechanism for fostering teaching competencies for LSST***

Strengthen inspection and evaluation of fostering results to help managers capture accurate feedback on fostering results to confirm the good sides and detect errors in order to promptly adjust the fostering content, programs, methods, forms and organization in order to achieve the highest results in the fostering according to the set objectives.

Examine and evaluate the fostering results to help managers master the situation after fostering; Help teachers apply well the knowledge and skills that have been accumulated in the teaching process. Grasping the progress of teachers through fostering will help the Head of Education and Training Department and the Principal have a basis to build the next fostering plan.

As the basis for pedagogical schools, the individual reporters adjust the fostering content to suit the actual conditions of the fostering organization unit.

Through the results of testing and evaluating fostering activities, the Head of

Education and Training Department and the Principal have more information channels in evaluating teachers in the emulation and commendation work, creating motivation for teachers to strive in fostering work.

### **3.3. RELATIONSHIP BETWEEN MEASURES**

Measures to manage activities of fostering teaching competencies for LSST in the Northern mountainous region in the orientation of general education reform have dialectical relationships, bind each other, support each other in the implementation process to create a complete and unified unity. Therefore, if only focusing on implementing a few measures, it will not ensure the synchronization, it will not be possible to bring into play the effectiveness of managing activities of fostering teaching competencies for LSST in general, and in the Northern mountainous areas in particular. Therefore, when performing the tasks, managers should coordinate many measures to achieve high efficiency in management. However, it can be based on specific conditions and time for managers to consider, select, and prioritize to focus on implementing each measure to suit the stage and reality of the unit under their management.

### **3.4. TESTING THE NECESSITY AND FEASIBILITY OF MEASURES**

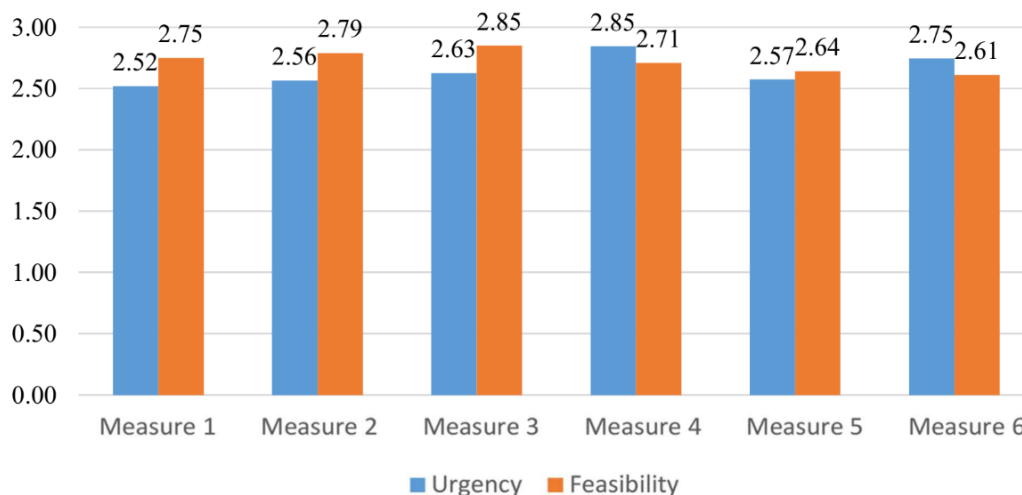
In order to confirm the urgency and feasibility of the management measures to foster teaching competencies for LSST in the Northern mountainous region in accordance with the orientation of renovating general education that the thesis has proposed, the researcher conducted the testing of the measures via referendum to key experts, managers and teachers in the research area (6 provinces in the Northern mountainous region), from which there is a basis for re-testing the scientific hypothesis that the thesis has set out.

After conducting the investigation and processing the data, we have obtained the following results:

- For the necessity: Through the results obtained from the data, it can be seen that all experts, managers and key teachers of the schools participating in the comments appreciate the necessity of the measures which have been proposed. All the measures proposed by the researcher are evaluated Very Necessary by over 51.8% of the people; the rest of the opinions are less necessary; no responses rated as unnecessary.

- For the feasibility: The results obtained from the data show that all measures proposed by the author have over 64.5% of the people who consider it very feasible. It proves that the introduction of these measures is feasible, if the organization performs well and synchronously these measures, it will help improve the teaching competencies of LSST in particular, the fostering quality in general.

- For correlation: The hierarchical correlation coefficient with  $R = 0.77$  confirms the positive and very close correlation between the necessity and the feasibility of the proposed measures. It means that these measures are needed. The relationship between necessity and feasibility can be generalized in a schematic diagram as follows:



**Chart 3.1. Evaluate the correlation between necessity and feasibility**

In summary, the results of testing measures have initially proved the scientific hypothesis of the topic. Therefore, in order to improve the quality of fostering teaching competencies, the management levels must carry out synchronously and systematically management measures. However, in each point of time, emphasis is placed on this measure or another.

### 3.5. PEDAGOGICAL EXPERIMENT

In terms of implementation, the thesis author cannot conduct testing of all proposed measures. Therefore, the author chooses the measure: "Direct secondary school principals to strengthen organizing fostering to improve teaching competencies for teachers through professional meetings" and a content of the measure: "Building a contingent of core teachers to support colleagues to develop teaching competencies to meet the requirements of educational innovation in secondary schools in the northern mountainous region" to conduct pedagogical experiment.

Through testing, we can confirm that professional meetings innovation activities towards researching new content topics, difficult content and in the direction of basic research, bringing the content needs to foster teachers into professional meetings, creating an environment for core teachers to support colleagues and to discuss and exchange learning in the professional community, thereby perfecting teaching competencies for teachers to meet the requirements of innovation in general education.

- The results of the entrance level survey (before the test) about the knowledge of the experiment participants are shown in the following table.

**Table 3.4. Results of evaluating the input teaching plans**

Good		Fair		Average		Poor	
Quantity	Percentage %	Quantity	Percentage %	Quantity	Percentage %	Quantity	Percentage %
4	15.4	7	26.9	10	38.5	5	19.2

Through the results of evaluating teaching plans of the experiment participants, it can be seen that the survey results of the experiment participants are still low. In order to improve the effectiveness of the integrated teaching competencies of teachers in the current context, they need to improve their teaching competencies through

professional group activities in the direction of basic research to meet the requirements of the 2018 General Education Program.

- Results of output level survey (after the experiment) about knowledge of experiment participants are shown in the following table:

**Table 3.6. Results of evaluating output teaching plans**

Quantity	Scores										Average score
	1	2	3	4	5	6	7	8	9	10	
26	0	0	0	0	3	6	9	3	3	2	7.46

Comparing with the results of the evaluation of the teaching plans before participating in the fostering, we have the following comparison table:

**Table 3.7. Comparing the results of evaluating input and output**

Time	Quantity	Parameters			
		AVERAGE SCORE	Variance	Standard deviation	Variability
Before	26	6.35	3.62	1.81	31.08
After	26	7.46	2.51	1.26	22.35

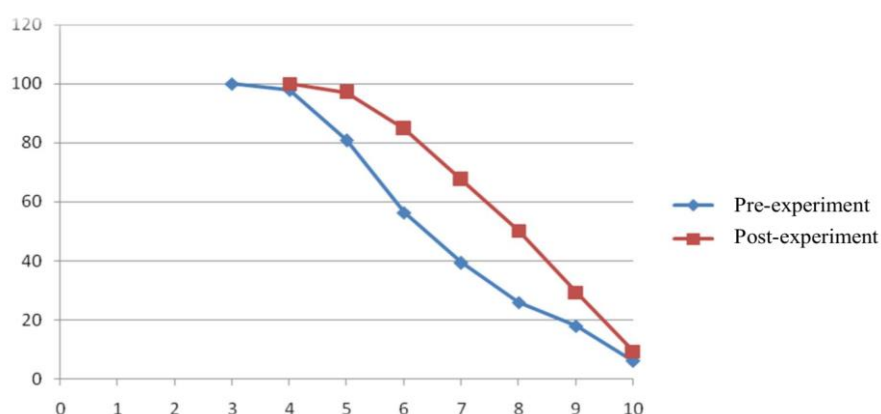
Also the results in this data sheet can be seen in the cumulative frequency distribution table before and after the test as follows:

**Table 3.8. Compare the cumulative frequency before and after the experiment**

Scores	Pre-experiment			Post-experiment		
	Quantity	Frequency	Frequency	Quantity	Frequency	Frequency
1	0	-	-	0	-	-
2	0	-	-	0	-	-
3	0	4.44	100	0	-	-
4	4	15.55	95.56	0	2.22	100
5	5	17.77	80.01	3	13.33	97.78
6	8	24.44	62.24	6	17.77	84.45
7	3	8.88	37.80	9	17.77	66.68
8	3	13.33	28.92	3	20.00	48.91
9	2	11.11	15.59	3	17.77	28.91
10	1	4.44	4.44	2	11.11	11.11
Total	26	100		26	100	

From the table above data can be constructed to represent the cumulative frequency distribution as follows:





**Figure 3.2. Frequency of accumulation before and after testing**

A look at the tables and graphs shows that the pre-test cumulative frequency line is to the left and bottom of the frequency line. This shows that the curves representing the pre-test cumulative frequency and frequency are both higher and shifted to the right than the pre-test cumulative frequency. With the above results, it is possible to confirm once again that the knowledge level of the experiment participants is better than before the experiment.

To confirm the above effects, we can test the difference in the average score of the tests before and after the experiment ( $d_{STN} - d_{TTN}$ ), we proceed to use the independent Z-test according to before and after the test to verify that the difference in the average score between pairs is significant or not statistically significant.

**Table 3.9. T-test test parameters**

$(d_{STN} - d_{TTN})$	$t_a$	$t$ (T-test)	df (free)
0,05	1,84	0,126	68

From the above data we can see that before the experiment, the difference in average score of the two tests is very small (0.05). Show that this difference is significant, not by chance but by the effect of the experiment.

- Analyze the results qualitatively

The lessons are illustrated by the teachers in the team to design, actively and flexibly regardless of the process and teaching steps in the textbook.

Results on the part of the teacher: has actively created, found measures to improve the quality of teaching and learning. Realize your limitations to correct them promptly.

The results on the side of the school principal: Putting the quality of lessons on top, evaluating the creativity and flexibility of each teacher.

## CONCLUSION AND RECOMMENDATION

### 1. Conclusion

The contingent of teachers plays a decisive role in ensuring the quality of education, so improving teaching competencies for teachers is the most important issue in schools in general and secondary schools in particular. Managing the activities of fostering teaching competencies for a contingent of LSST is an urgent requirement nowadays, requiring thorough treatment in both theory and practice.

Managing activities of fostering teaching competencies for LSST in the direction of renovating general education include: building plans; organization;

direction; evaluation.

The process of managing activities of fostering teaching competencies for LSST is influenced by subjective factors and objective factors such as capacity of educational managers, needs, awareness, attitudes to participate in fostering, self-fostering and refostering of teachers; The capacity of lecturers to foster... management mechanisms and policies of the State and the Industry; facilities and conditions for fostering activities ...

Through the survey of the current situation of fostering teaching competencies for LSST in the Northern mountainous region according to the orientation of educational innovation, it shows that the fostering of teaching competencies for LSST recently achieved certain achievements. However, there are still shortcomings and limitations: The development of fostering plans has not been properly implemented according to the process, reflected in the evaluation level of implementation stages. Directing work is not tight, urging, motivating learning for teachers has not done well. Examining and evaluating the results of implementing the fostering plan just stops at the learning results at the end of the fostering course of the trainees.

On the basis of theoretical and current research, the author of the dissertation has proposed 06 measures to manage activities of fostering teaching competencies for LSST in the Northern mountainous area in the direction of renovating general education

The experiment results show that the proposed measures are necessary and highly feasible. Thus, the research task has been solved, and the research purpose is achieved. The measures proposed in the thesis are not only applicable to the Northern mountainous area but also applicable in other localities.

## **2. Recommendation**

### ***2.1. For the Ministry of Education and Training***

The Ministry of Education and Training needs to develop fostering programs of teaching competencies for LSST periodically, with the content adhering to the reality of the current requirements of educational renewal.

Well implement the remuneration regimes for teachers, improve the working regime and salary of teachers and educational managers.

### ***2.2. For Teacher-training Universities***

Teacher-training Universities update the secondary curriculum according to the renewal requirements.

There is a form of fostering a contingent of high-quality lecturers to meet the requirements of fostering LSST today.

### ***2.3. For the Education and Training Department***

Consider the work of fostering the teaching staff in general and fostering the teaching competencies for LSST as the decisive factor to the comprehensive quality of lower secondary education of the sector.

Advise district-level People's Committees in building and fostering a contingent of teachers. Promulgate regulations on fostering and fostering LSST in accordance with the requirements of educational innovation: Innovating content, methods of fostering teachers; strengthen examination, evaluation, and grading of

teachers, take measures to resolve teachers who have not met requirements in terms of expertise - profession.

Organize fostering courses for the management staff of secondary schools on school management in general and managing activities of fostering teaching competencies for teachers in particular.

Increase investment in facilities, finance for teacher fostering activities, adopt policies to encourage and create conditions for teachers to improve their professional qualifications and skills.

#### **2.4. For lower-secondary school administrators**

Principals of secondary schools need to properly analyze the actual situation of the teaching competencies of school teachers, so that there are appropriate plans and measures.

Strengthen the socialization of education, attract resources to participate in fostering activities in order to increase the facilities and teaching equipment to serve the fostering, teaching and educational activities of school.

#### **2.5. For LSST**

Each teacher must be deeply aware of the meaning and effects of educational innovation and the importance of fostering teaching competencies to meet the current educational innovation requirements.

Constantly self-study and self-foster to improve professional skills and skills to meet the requirements of educational innovation.