# MINISTRY OF EDUCATION AND TRAINING THE VIETNAM INSTITUTE OF EDUCATIONAL SCIENCES

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# MANAGING INNOVATION IN TEACHING METHODS AT HIGH SCHOOLS IN DA NANG CITY

Major : Education management

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# SUMMARY OF THE DOCTOR OF PHILOSOPHY THESIS IN EDUCATIONAL SCIENCE

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For references of the full thesis, please contact:

- The National Library
- The Vietnam Institute of Educational Sciences

#### INTRODUCTION

### 1. Significance of the research

The innovation in teaching methods and managing the innovation in teaching methods play an important role in the innovation in education in which it helps transferring the education from concentrating on teaching contents to focusing on capacity development for students in order to develop their comprehensive personality and capacity, especially their application and creativity ability.

Over the years, the management of teaching methods innovation of high school principals in Da Nang have achieved significant results. However, these results still have not met the requirements of innovating teaching methods towards enhancing students' activeness during the innovation process of high school education.

From the above issues, we choose a research topic that uses theories of education management, school management, teaching process management to solve practical problems of managing the innovation in teaching methods at high schools. The thesis is entitled: "Managing innovation in teaching methods at high schools in Da Nang city".

#### 2. Aim of the research

To propose some measures to manage the innovation in teaching methods to enhance the quality of teaching at high schools of Da Nang city.

#### 3. Field of the research

Teaching processes at high schools.

### 4. Object of the research

Measures to manage innovation in teaching methods of high school principals in Da Nang city.

#### 5. Hypothesis

Innovation in teaching methods that focuses on capacity development for students is a key issue of secondary education reform. If the research can result in the proposal and application of innovation management measures in teaching methods of high school principals by strengthening basic management functions (e.g. planning, organising, directing, testing/evaluation), simultaneously improving key issues of management (e.g. thinking innovation, capacity building, providing facilitation in infrastructure and motivation for teachers and students), it will help promote the overall strength from components of quality and efficiency of innovation activities in teaching methods, contributing to improving teaching quality to meet the demands in education reform at high schools in Da Nang.

#### 6. Tasks of the research

- **6.1.** Doing the literature review for managing innovation in teaching methods at high schools.
- **6.2.** Examining and assessing the situation of managing innovation in teaching methods at high schools in Da Nang city.
- **6.3.** Proposing some innovation management measures in teaching methods in order to enhance the quality of teaching and learning at high schools in Da Nang city.
  - 6.4. Testing some proposed measures.

#### 7. Scope of the research

- Studying the innovation management in teaching methods of high school principals in Da Nang city.
- Doing practical and experimental studies at high schools in Da Nang city from academic year 2010 2011 to academic year 2013 2014.

#### 8. Research methodology and methods

**8.1. Research methodology:** Systematic approach, change management approach, capacity development approach, competency based education (CBE) approach, management function and content approach.

#### 8.2. Research methods

- Theoretical research methods.
- *Practical research methods including:* Surveys, product research, expert opinion, observation (attending model-classes in innovative teaching methods), phenomenology, narrative analysis.

- Mathematical statistical methods: Mathematical statistical methods are used to process quantitative data (e.g. making frequency distribution table, calculating average scores, making charts and graphs) and do qualitative analysis of the research results.

### 9. Theoretical propositions

- Teaching method is the tool to deliver teaching contents and curriculum in order to achieve learning goals. Innovation in teaching methods is an objective and necessary requirement and is orientated towards capacity development for students, which suits the focus of current education reform.
- Innovation management in teaching methods of high school principals is considered as managing an element of the teaching management system that has a close relationship with other elements, using systematic approach, management function and content approach, change management approach, capacity development approach and competency based education (CBE) approach to support the literature review, situation study and solution proposal.
- Strengthening planning, raising the awareness and capacity for teachers and teaching team leaders, improving infrastructural and technical conditions and teaching equipment, innovating examination and assessment processes, developing special mechanisms, which creates the motivation to boost innovation in teaching methods, are seen as main groups of measures for high school principals to manage innovation in teaching methods effectively in the context of current education reform.

#### 10. Contributions of the research

- Contributing to the literature on managing innovation in teaching methods at high schools and how to manage innovation in teaching methods focusing on capacity development for students by combining management function and management content approach.
- Clarifying the real situation of innovation in teaching methods and managing innovation in teaching methods at high schools in Da Nang city,

detecting and assessing the strengths, weaknesses, opportunities and challenges in the process of managing innovation in teaching methods at high schools in Da Nang city.

- Proposing 5 groups of measures including 23 specific measures simultaneously affecting planning, organising, directing, examining/assessing functions and generating changes in thinking and awareness, creating conditions to ensure and motivate the implementation of teaching method reform. Experimental results show the significance and feasibility of the proposed measures and their applicability in practical management.

#### 11. Structure of the thesis

Apart from the introduction, conclusion and suggestion sections, there are 3 main chapters in this thesis:

- Chapter 1: The literature review on managing innovation in teaching methods at high schools
- Chapter 2: The real situation of managing innovation in teaching methods at high school in Da Nang city
- Chapter 3: Some measures to manage innovation in teaching methods at high schools in Da Nang city

Besides, there are also sections for references and appendices.

#### Chapter 1

# THE LITERATURE REVIEW ON MANAGING INNOVATION IN TEACHING METHODS AT HIGH SCHOOLS

#### 1.1. Overview of the literature

1.1.1. The literature on innovation in teaching methods: National and international research on innovation in teaching methods contain different teaching concepts, models and trends. These teaching concepts and models have their own strengths and limitations. Under the current trend of educational reform, the innovation in teaching methods presses new demands for teaching and management activities at high schools.

1.1.2. The literature on managing innovation in teaching methods: National and international research on managing innovation in teaching methods all emphasise the role of managers, especially school principals, in managing innovation in teaching methods. Thus managing innovation in teaching methods at high schools is an urgent and long-term task within the trend of fundamental and comprehensive innovation of the education in Vietnam

#### 1.2. Some basic definitions and concepts

- **1.2.1. School management:** School management is a system of rational acts of school management subject on management objects in order to achieve the educational development goals of the school.
- *1.2.2. Teaching process:* Teaching process is the dialectical unity of two basic elements in the teaching process: teaching and learning.
- **1.2.3. Teaching methods:** Teaching method is the collaboration of teachers and students during the teaching process that is conducted under the leading role of teachers to optimise teaching goals and tasks.
- 1.2.4. Innovation in teaching methods: Innovation in teaching methods is the innovation of ineffective working forms and methods of teachers and students by using more effective forms and methods to enhance the quality of teaching, promote the positiveness and creativity of students, develop their capacity.
- 1.2.5. Managing innovation in teaching methods: Managing innovation in teaching methods is the process of the principal purposefully and organisationally impacting the whole organisation, human and infrastructure of the school in order to achieve the devised goals of innovation in teaching methods.

### 1.3. High schools in the national education system

1.3.1. Position of high schools: High school is an educational institution in the national education system. A high school has legal status and its own seal.

- *1.3.2. Responsibilities and rights of high schools:* Responsibilities and rights of high schools comply with Article 3, Chapter I, The Regulation of secondary schools, high schools and multi-level schools.
- *1.3.3. Educational goals of high schools:* Educational goals of high schools are stated in Article 27, The Law on Education year 2005.
- 1.3.4. Educational curricula and methods of high schools: Educational curricula and methods of high schools are stated in Article 28, The Law on Education year 2005.
- 1.3.5. Responsibilities and rights of high school principals: Responsibilities and rights of high school principals are specified in The Law of Education year 2005.
  - 1.4. The literature on innovating teaching methods at high schools
- **1.4.1.** The role of innovation in teaching methods: Innovation in teaching methods plays an important role in ensuring the moral, intellectual, physical, artistic and living skill development of students.
- 1.4.2. Innovation in teaching methods towards capacity development for students: Capacity-oriented teaching is an open method of teaching that generates the activeness of students. The method helps students form competencies including: professional capacity, method capacity, social capacity and individual capacity.
- **1.4.3. Measures of innovation in teaching methods:** There are many measures of innovation in teaching methods with different approaches. Every teacher with their own experience needs to specify their rational measures.
- 1.4.4. Innovation in teaching methods in relation to elements of the teaching process: Innovation in teaching methods is concentric with the teaching process and has tight relationship with elements of the teaching process.
- 1.5. The management content approach in managing innovation in teaching methods at high schools: Management function and management object approach. Approach in teaching method innovation towards capacity development for students.

- 1.6. Contents of managing innovation in teaching methods of high school principals
- 1.6.1. Enhancing awareness and changing thinking about innovation in teaching methods: Principals need to broadly disseminate the plan of innovation in teaching methods in order to encourage teachers and students to actively participate in innovation activities in teaching methods.
- 1.6.2. Planning for innovation in teaching methods: Planning is the first step of the management process to pursue the goal of innovation in teaching methods.
- 1.6.3. Organising towards innovation in teaching methods: Organising towards innovation in teaching methods is the process of allocating and arranging resources in certain ways to ensure the successful implementation of devised goals of innovation in teaching methods.
- 1.6.4. Directing the implementation of innovation activities in teaching methods of teachers and students: Directing the implementation of innovation activities in teaching methods is the process of the principal impacting all members of the school in order to turn the general tasks in teaching method innovation of the school into practical activities of each member.
- 1.6.5. Training in innovative teaching methods for teachers: Training for teachers needs to be taken seriously because it will contribute to improving the innovation capacity and management efficiency of the principal.
- 1.6.6. Managing IT application, ensuring the facility and equipment for the innovation in teaching methods: Managing IT application in teaching method innovation in order to attract and stimulate students to actively participate in learning. Equipping with modern teaching facilities positively serves the implementation of innovation in teaching methods.
- 1.6.7. Examining and assessing the implementation of innovation in teaching methods: Examining and assessing the implementation of

innovation help the school enhance the effectiveness and efficiency of the innovation in teaching methods and the quality of education.

- **1.6.8.** Creating the mechanism to motivate the innovation in teaching methods: Creating the mechanism of physical and mental encouragement will boost the effective implementation of innovation in teaching methods.
- 1.7. Factors affecting the management of innovation in teaching methods at high schools: Both internal and external factors affect the process of innovation in teaching methods.

### **Conclusions for Chapter 1**

Some literature reviews on the research issue draw following conclusions:

- 1. National and international studies on the innovation in teaching methods and managing the innovation in teaching methods of many authors have been generalised systematically, showing a number of advantages in theoretical and practical basis to be used in the practice of innovation in teaching methods.
- 2. Theories on educational management, school management, innovation management in teaching methods have been systemised under the management cycle, ensuring the theoretical basis for the innovation management in teaching methods oriented towards capacity development for students. Then, high school principals could apply in their management practices to build the scientific rationale for the contents of managing innovation in teaching methods at high schools.
- 3. The thesis applies systematic approach, change management approach, capacity approach, management function and management content approach in order to identify the content of innovation in teaching methods and factors affecting the innovation in teaching methods.
- **4.** Innovation management in teaching methods in particular and school management in general are both science and art. Therefore the principals need to master the theoretical basis on the objectives, tasks, functions and contents of managing innovation in teaching methods. From then, they could

scientifically, flexibly and creatively apply management issues into their management practices to call for the voluntary and active participation of all teachers and teaching teams with all their ability and enthusiasm.

#### Chapter 2

# THE SITUATION OF MANAGING INNOVATION IN TEACHING METHODS AT HIGH SCHOOLS IN DA NANG CITY

- 2.1. Overview of the natural condition, socio-economic situation and education of Da Nang city
- **2.1.1.** Geographical position and natural condition of Da Nang city: Located in the central of the country, Da Nang city has a special geographical position favourable for the rapid and sustainable development.
- 2.1.2. The socio-economic situation and development orientation in the future: Da Nang strives to be one of the leading cities/provinces in the process of industrialisation and modernisation to become the socio-economic centre of the Central and Highland Region.
- 2.1.3. Overview of the education in Da Nang city: In recent years, education and training in Da Nang have developed comprehensively in all fields and levels of education.
- **2.2.** Overview of high school education in Da Nang city: In recent years, the quality and efficiency of high school education in Da Nang is well maintained and developed, the quality of teaching staff and other resources for innovation in teaching methods is relatively good. However, when compared to the requirements of development, high school education in Da Nang needs to continue to enhance the capacity of teaching staff, mobilise all resources to maintain and improve the quality of high school education more comprehensively.

### 2.3. Investigating the situation:

The author carried out an investigation into the situation of managing the innovation in teaching methods with 55 managing staff and 526 high school teachers in Da Nang city by designing the questionnaires, sampling, conducting surveys through collecting statistical figures, researching

documents collected from the city Department of Education and Training, researching documents and profiles of high schools, discussing directly with experts, managing staff, teachers... and analysing the data.

- 2.4. The situation of innovation in teaching methods at high schools in Da Nang city
- **2.4.1.** Teachers' awareness of innovation in teaching methods: Through surveys and discussions, we find that the majority of teachers and managing staff have the proper awareness of innovation in teaching methods. Few still has some confusions that adversely affect the application of teaching methods into the process of innovation in teaching methods.
- 2.4.2. Managing staff and teachers' awareness of the significance of the innovation in teaching methods: Through direct discussions, the investigation shows that most of high school teachers and managing staff have appreciated the importance and necessity of innovating teaching methods at high schools. However the determination and consensus to implement the innovation is not high, scored 1.85 on average.
- 2.4.3. The capacity of teachers to use innovative teaching methods: The survey shows the capacity of teachers to design lessons applying the innovation in teaching methods and organise the innovative teaching is limited (scored 1.54). Hence there is the need to continue directing the implementation of innovation in teaching methods of teachers.
- 2.5. The situation of managing innovation in teaching methods at high schools in Da Nang city
- 2.5.1. The awareness of the significance of managing innovation in teaching methods: Principals of high schools have developed proper awareness of directing the planning and implementation of innovation activities in teaching methods.
- 2.5.2. Enhancing managing staff and teachers' awareness of the innovation in teaching methods: The survey shows that the dissemination on innovation in teaching methods fluctuates around average level (scored

1.7), the willing to collaborate in innovation activities is not high (scored 1.67).

### 2.5.3. Planning for the innovation in teaching methods:

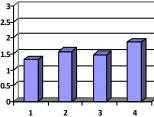


Figure 2.6: Planning for the innovation in teaching methods

The survey shows the average level of planning for the innovation in teaching methods (scored 1.31). A number of principals do not have strong determination in directing this task, resulting in inefficiency.

- 2.5.4. Organising the steering committees for innovation activities in teaching methods: The survey shows that the index of organising the steering committees for innovation activities in teaching methods, including establishing the Steering Committee, assigning responsibilities and coordinating in implementation, is below average (scored 1.13).
- 2.5.5. Directing teachers and teaching teams in the implementation of innovation in teaching methods: The investigation shows that many schools adopted the Operating Regulations of teaching teams. The teachers are required to strictly implement the contents of the regulations, including the implementation of innovation in teaching methods and examination and assessment activities. However the contents of innovation in teaching methods are still not specific and practical, so their efficiency is not high.

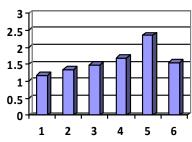


Figure 2.9: Directing teachers and teaching teams in the implementation of innovation in teaching methods

2.5.6. Training in professional knowledge, pedagogic skills and skills to use innovative teaching methods for teachers: The survey shows that many principals have plans to create conditions for teaching team leaders and teachers to participate in training courses on management skills, innovation in teaching methods, examination and assessment or professional activities about innovation in teaching methods... However, the level of implementation is below average (scored 1.54).

# 2.5.7. Managing IT application, facility and teaching equipment to implement innovation in teaching methods

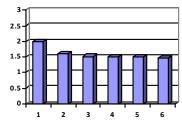


Figure 2.11: Managing IT application, facility and teaching equipment to implement innovation in teaching methods

The survey shows that the management of IT application, facility and teaching equipment to implement innovation in teaching methods is at average level. The procurement of modern equipment is limited, scored at an average level (1.52).

- 2.5.8. Examining and assessing the innovation in teaching methods: The survey indicates that the principals perform the examination of innovation activities quite well in many contents. The contents that receive the least attention are the principals directly examining professional documents of teachers, attending classes and visiting classes without advanced notice.
- 2.5.9. Creating the mechanism to motivate the implementation of innovation in teaching methods: The survey shows that schools have reward mechanisms for teams and individuals who have high achievements in teaching method innovation activities. There are still some schools that underestimate the role of this mechanism, resulting in reducing teachers' motivation to implement innovation in teaching methods.

# 2.6. Analysing the real situation of managing innovation in teaching methods at high schools in Da Nang city

- **2.6.1. Strengths:** The principals have adopted many measures at many different levels that fit the actual conditions of the school in managing innovation in teaching methods.
- 2.6.2. Weaknesses: Some principals do not have high determination in implementing the innovation. Some do not properly implement the issues of raising the awareness, enhancing innovation skills, examining and assessing the implementation of innovation in teaching methods. They do not direct and instruct teachers efficiently in selecting teaching contents, designing lessons focusing on capacity development for students. Some teachers are not enthusiastic in innovating teaching methods.

### 2.6.3. Opportunities and challenges

- Opportunities come from the educational reform policies in teaching curricula, contents, textbooks and the innovation in examination and assessment focusing on capacity development for students.
- Challenges come from the awareness of some teachers and the fact that some are still afraid of facing changes and applying modern technology.

# **Conclusions for Chapter 2**

- 1. Basically people's life, social and educational policies in Da Nang have been increasingly improved to match with the reputation of a "worth living" city.
- 2. Regarding education, in recent years the City authority has invested heavily in school facilities, the educational quality has been increasingly improved. For high school education, in recent years, there have been positive changes in managing teaching activities, the behavioural and academic capacity of the students has been considerably improved the percentage of excellent students increases while the percentage of weak students declines.
- 3. Regarding the innovation management in teaching methods at high schools in Da Nang city, in recent years, there have been significantly positive changes in the awareness of high school principals in directing and organising the implementation of innovation in teaching methods. A number of highly competent, experienced and enthusiastic teachers have actively invested in innovating teaching methods to develop students' activeness and creativeness.

However, the innovation management in teaching methods at high schools in Da Nang city still has some following limitations:

- Activities of planning, organising, directing, examining and assessing the innovation in teaching methods have not been implemented adequately and effectively.
- The dissemination and training activities have not yet been implemented as expectation. A number of teachers are still afraid of facing changes and not enthusiastic in innovating teaching methods towards developing students' capacity.
- Training in innovative learning methods for students have not been done efficiently.
- The mobilisation of resources and the generation of motivation to innovate teaching methods have not been done strongly, which thus could

not stimulate the determination in implementing the innovation in teaching methods.

From the above situations, we found the significance for high school principals to strengthen applying management measures in innovating teaching methods.

### Chapter 3

# SOME MEASURES TO MANAGE INNOVATION IN TEACHING METHODS AT HIGH SCHOOLS IN DA NANG CITY

### 3.1. The orientations to propose the measures

- The orientation to innovate fundamentally and comprehensively the education in Vietnam.
- The strategy to develop education training in Vietnam phase 2011 2020.
- The orientation to develop education training in Da Nang towards 2020.
- **3.2.** The principles to propose the measures: Ensuring the purposefulness, the systematisation, the uniformity, the practicality and the feasibility.
- 3.3. Some proposed measures to manage innovation in teaching methods at high schools in Da Nang city

## 3.3.1. Measures of planning for innovation in teaching methods

- \* Goals and significance: Planning helps the principals develop a holistic and comprehensive view with future orientation aiming at defined objectives.
- \* Contents: Planning at school, teaching team and teacher level must focus on the implementation of the following four groups of measures: administrative measures in managing the staff; self-training measures during doing assigned tasks; measures of creating mental and physical stimulation; measures affecting the honour and prestige of teachers.
- \* How to implement: Studying guiding documents, analysing the situation, setting goals and targets, seeking solutions, allocating resources,

scheduling and issuing plans. Plans to innovate teaching methods of teaching teams and teachers must be concentric with the school plan.

# 3.3.2. Measures of enhancing the awareness and the capacity to innovate teaching methods for teaching team leaders and teachers

- 3.3.2.1. Training to raise the awareness of innovating teaching methods focusing on capacity development for students
- \* Goals and significance: To positively change the awareness to implement the innovation in teaching methods.
- \* Contents: The principals need to strengthen the dissemination activities for teachers about the role, position and significance of innovating teaching methods towards improving the quality of education.
- \* How to implement: Organising training courses for teachers on policies and programmes related to the innovation in teaching methods.
- 3.3.2.2. Training in teaching methods aiming at capacity development for students
- \* Goals and significance: To understand the perspectives of active teaching and learning to apply creatively and efficiently to the process of innovating teaching methods.
- \* Contents: Training managing staff and teachers the active teaching methods that aim at capacity development for students.
- \* How to implement: The principals allow the teachers to attend training courses on theoretical and practical contents of active teaching methods organised by the schools and other organisations.
- 3.3.2.3. Organising trainings to enhance management capacity in innovating teaching methods for managing staff and teaching team leaders
- \* Goals and significance: Enhancing management capacity for managing staff and teaching team leaders will determine the efficiency of innovation in teaching methods and the quality of education at high schools.
- \* Contents: Training in political quality, ethical issues, lifestyle and general management skills as well as management skills in innovating teaching methods.

- \* How to implement: Allowing managing staff and teaching team leaders to attend training courses on management skills in innovating teaching methods.
  - 3.3.2.4. Setting operational regulations for teaching teams
- \* Goals and significance: The operation regulation for teaching teams is fundamental to implement the management plan of the school.
- \* Contents: Regulations on operation contents, operation plans, professional documents, requirements for teachers to perform regarding their professional tasks and innovation in teaching methods.
- \* How to implement: Having teachers study legal documents on the operation of the schools and teaching teams... then unify their perceptions, give their feedbacks for setting regulations, finalise the regulations and seriously commit to implementing the regulations of their teaching teams.
  - 3.3.2.5. Directing the IT application activities in teaching
- \* Goals and significance: To assist in enhancing the school capacity in innovating teaching methods.
- \* Contents: High school principals need to thoroughly spread and clarify the orientations and the roles of IT application in innovating teaching methods and direct the IT application in teaching efficiently.
- \* How to implement: Strengthening the training of IT human resources, guiding teachers to use software to support innovation activities in teaching methods.
- 3.3.2.6. Directing the training in active learning methods towards capacity development for students
- \* Goals and significance: Creating conditions for students to promote their thinking and creativity ability, independence and activeness in learning.
- \* Contents: Developing proper learning motives and attitudes, promoting the activeness, independence and creativity in learning.
- \* How to implement: The principals direct teaching teams and teachers to guide their students the innovative learning methods aiming at student capacity development.

- 3.3.2.7. Directing the innovation in examination and assessment of students' academic results
- \* Goals and significance: To facilitate the capacity development for students.
- \* Contents: Ensuring the general level in student quality with clear classification.
- \* How to implement: The principals direct teaching teams and teachers to comply with the process of examination and assessment that aims at capacity development.

# 3.3.3. Measures of improving infrastructure, teaching facilities and equipment for the innovation in teaching methods

- 3.3.3.1. Improving teaching facilities and equipment
- \* Goals and significance: To contribute to enhancing the quality of teaching and learning.
- \* Contents: Improving and upgrading infrastructure, teaching facilities and equipment to meet the requirements of innovation in teaching methods.
- \* How to implement: Developing strategic plans and annual plans for the construction and repair of infrastructure, the procurement of teaching facilities and equipment to meet the requirements of innovation in teaching methods.
  - 3.3.3.2. Developing modern IT infrastructure
- \* Goals and significance: IT infrastructure plays a significant role in positively changing management activities as well as teaching and learning methods.
- \* Contents: The principals need to strategically plan long-term orientations to develop IT infrastructure, create the conditions for managing staff, teachers and students to use the IT infrastructure efficiently.
- \* How to implement: IT infrastructure includes high value facilities that cannot be equipped at the same time. Thus there must be a long-term development plan divided into many phases. Paying attention to the urgent needs of repair and maintenance. Encouraging the use of personal computers/

laptops of students, managing staff and teachers in innovation activities in teaching methods.

# 3.3.4. Measures of examining and assessing the innovation in teaching methods

- 3.3.4.1. Building criteria for assessing teaching periods applying innovative teaching methods
- \* Goals and significance: To help accurately assessing teaching periods applying innovative teaching methods.
- \* Contents: The assessment needs to concentrate on 3 elements: knowledge, skill and pedagogical art.
- \* How to implement: The principals direct the development of assessment criteria for teaching periods that use innovative teaching methods aiming at capacity development for students.
- 3.3.4.2. Organising model-class attendance and teaching contests using innovation in teaching methods
  - \* Goals and significance: To improve teachers' skills.
- \* Contents: The principals set targets, processes and contents of class attendance activities and teaching contests for innovation in teaching methods.
- \* How to implement: The principals make schools' general plans for class attendance activities and teaching contests, from which teaching teams make and implement their own plans.
  - 3.3.4.3 Examining and assessing the activities of teaching teams
- \* Goals and significance: To assist the management of the principals so that they can make timely adjustments to the innovation activities.
- \* Contents: Examining all the innovation activities in teaching methods of teaching teams.
- \* How to implement: Implementing specified examination procedures with conclusions and assessments on strengths and weaknesses so that teaching teams could adjust the contents of the innovation activities to suit the school plans.

- 3.3.4.4. Directing the operation of internal examination teams
- \* Goals and significance: To assist the principals in assessing and adjusting the management process of innovation activities in teaching methods.
- \* Contents: Examining the contents and stages in the process of innovating teaching methods of teaching teams and teachers.
- \* How to implement: The internal examination teams are approved to be established by the principals at the beginning of the academic year, helping the principals in implementing internal examination plans and innovation activities in teaching methods.

# 3.3.5. Measures of creating mechanisms to motivate the innovation in teaching methods

- 3.3.5.1. Providing the rewarding and encouraging mechanism
- \* Goals and significance: To motivate the implementation of innovation in teaching methods.
- \* Contents: The principals issue internal expenditure regulations, call for the financial support from external organisations and individuals to create rewarding funds for innovation activities in teaching methods.
- \* How to implement: Issuing internal expenditure regulations with rewarding policies for achievements in innovation activities in teaching methods.
  - 3.3.5.2. Building criteria for emulation
- \* Goals and significance: To stimulate teaching teams and individuals to accomplish their tasks.
- \* Contents: Making innovation activities in teaching methods a criterion to assess the emulation of teams and individuals at high schools.
- \* How to implement: Directing the creation of emulation criteria related to innovation activities in teaching methods.
- 3.3.5.3. Organising experience exchange programmes among teachers of teaching teams and high schools on capacity-oriented teaching

- \* Goals and significance: Gaining experiences from others is the opportunity for teachers to enhance their innovation capacity in teaching methods.
- \* Contents: The principals propose topics for teaching contests, specialised seminars and workshops on innovation in teaching methods.
- \* How to implement: The principals devise plans for organising school and inter-school teaching contests, seminars and workshops to create the opportunities for teachers to share and exchange experiences in innovating teaching methods.
- 3.3.5.4. Performing teacher assessment based on specified professional standards
- \* Goals and significance: To help teachers develop their own development plans. To help principals develop plans for training, staff planning and propose appropriate policies for teachers.
- \* Contents: The principals perform teacher assessment based on 5 standards specified in the Circular No. 30/2009/TT-BGDDT issued by the Ministry of Education and Training.
- \* How to implement: The principals make assessment plans ensuring proper procedures, democracy and publicity.
- 3.3.5.5. Developing the educational environment with the coordinating relationships between schools, social organisations and parent representative boards
- \* Goals and significance: To create the favourable educational environment. To boost the efficient management in teaching method innovation.
- \* Contents: Creating conditions to ensure the best educational environment, developing the coordination relationships to create an operational system for managing innovation in teaching methods.
- \* How to implement: The principals together with the Party committees, labour unions and youth unions build coordinating regulations on managing innovation in teaching methods.

- 3.3.5.6. The class head teachers impact the students to develop their personality and capacity in the trend of innovation in teaching methods
- \* Goals and significance: Contributing to developing students' personality and capacity.
- \* Contents: The students have opportunities to participate in capacity and creativity enhancement activities.
- \* How to implement: The class head teachers are responsible for designing and instructing students to participate in capacity and creativity enhancement activities.
- 3.3.5.7. Organising experience exchange activities among students on self- and active learning skills
  - \* Goals and significance: To enhance active learning skills for students.
- \* Contents: The principals create the favourable learning environment for students to develop their self- and active learning skills.
- \* How to implement: The principals make plans for organising learning clubs, conferences and seminars... on active learning methods so that the students could practise their self- and active learning capacity.
- **3.4.** The relationship between groups of measures: The measures proposed for the principals to apply in innovation management in teaching methods have mutually interactive relationships, by which innovation management activities in teaching methods could bring positive and practical results.
- **3.5.** Surveying the urgency and feasibility of the proposed measures: The author used multi-level questionnaires, collecting and analysing data in order to assess the urgency and feasibility of the proposed measures. The results show that the proposed measures are urgent and feasible.
- **3.6. Testing the proposed measures:** The author tested some proposed measures at 4 high schools in Da Nang city during the period of 3 years (from September 2011 to September 2014), choosing 1 teaching team at each schools including mathematics team of Phan Chau Trinh high school, physics team of

Nguyen Trai high school, biology team of Ngu Hanh Son high school and literature team of Ong Ich Khiem high school. Results are as followed:

\* Regarding building criteria for assessing teaching periods applying innovative teaching methods

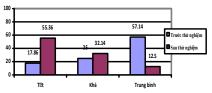


Figure 3.1: Comparison on the levels of building criteria for assessing teaching periods applying innovative teaching methods

After 2 years of testing building criteria for assessing teaching periods applying innovative teaching methods, there have been considerably positive changes, thereby the schools could complete the criteria and implement the assessment of teaching periods efficiently.

\* Regarding organising teaching contests on innovation in teaching methods

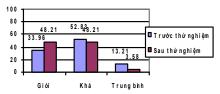


Figure 3.2: Comparison on rankings of teaching periods in teaching contests

By comparing the pre-testing and post-testing results, we find that the percentage of excellent teaching periods increased substantially by 10.39%, the percentage of good teaching periods reduced, especially the percentage of average teaching periods declined sharply. This shows that teachers have focused on innovation in teaching methods aiming at capacity development for students.

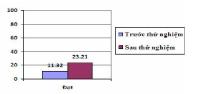


Figure 3.3: Comparison on the results of good teacher competitions at school level

The testing results at 4 teaching teams of 4 high schools show that there was 11.32% of teachers granted good teacher title in academic year 2012-2013. This rate was 23.21% in academic year 2013-2014, increasing by 11.89% compared to pre-testing result.

\* Regarding examining and assessing innovation activities in teaching methods

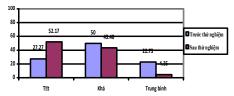
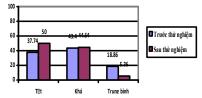


Figure 3.4: Comparison on examination and assessment results of innovation activities in teaching methods

By comparing the pre-testing and post-testing results, we find that the percentage of excellent activities increased by 24.9%, the percentage of good and average activities decreased by 6.52% and 18.38% respectively. This result shows that teachers have made considerable changes in implementing innovation in teaching methods.

\* Regarding the operational efficiency of internal examination teams



# Figure 3.5: Comparison on the operational efficiency of internal examination teams

By comparing the pre-testing and post-testing results, we find that the internal examination teams performed their tasks more efficiently, examination results were more accurate and objective, specifically the percentage of excellent rating increased by 12.26%.

### **Conclusions for Chapter 3**

Managing innovation in teaching methods at high schools plays an important role in the process of teaching and learning management, having close relationship with the innovation activities in examination and assessment. The process of managing innovation in teaching methods is carried out with five groups of measures that have reciprocally interactive relationship to help high school principals manage the innovation in teaching methods successfully, which are: Measures of planning for innovation in teaching methods; measures of enhancing the awareness and the capacity to innovate teaching methods for teaching team leaders and teachers; measures of improving infrastructure, teaching facilities and equipment for the innovation in teaching methods; measures of examining and assessing the innovation in teaching methods; measures of creating mechanisms to motivate the innovation in teaching methods.

#### **CONCLUSIONS AND SUGGESTIONS**

#### 1. Conclusions

1.1. Managing innovation in teaching methods is implementing management functions. During the management process, there is the need to ensure addressing the relationships between elements of the teaching process, which are: Goals - Contents - Teaching Method - Teaching facilities - Organisation - Assessment. In order to improve the educational quality of the school, the principal must pay attention to managing innovation in teaching methods efficiently in accordance with the trend of educational development of the country, the region and the world.

- 1.2. Through the investigation into the situation of managing innovation in teaching methods, we find that most principals have shown their leading role in innovation management activities in teaching methods at high schools. However there are still some limitations in managing innovation in teaching methods at high schools in Da Nang city such as: training in specialised knowledge and skills for teaching team leaders ad teachers was not really efficient and lacked a long-term orientation; examination activities on teaching method innovation were underestimated and their efficiency was not really accurate. The reasons for this situation are: Some school principals did not master the theoretical knowledge on managing innovation in teaching methods; teaching team leaders were not properly trained in innovation skills; a number of teachers were not enthusiastic and voluntary to implement the innovation in teaching methods.
- 1.3. In order to improve the efficiency of managing innovation in teaching methods, contributing to enhancing the quality of teaching and assessing students' capacity to meet the current requirements of high school educational reform, we propose 5 groups of measures for the principals to manage innovation in teaching methods, which are: Measures of planning for innovation in teaching methods; measures of enhancing the awareness and the capacity to innovate teaching methods for teaching team leaders and teachers; measures of improving infrastructure, teaching facilities and equipment for the innovation in teaching methods; measures of examining and assessing the innovation in teaching methods; measures of creating mechanisms to motivate the innovation in teaching methods.

The assessment results on the urgency and feasibility of the proposed measures by surveying and testing show that the proposed measures are urgent and feasible

### 2. Suggestions

# 2.1. For the Ministry of Education and Training

We suggest the Ministry of Education and Training regularly offer more practical training contents for the teachers to apply to innovating teaching 27

methods at high schools. Teaching facilities and equipment play a very important role in innovating teaching methods, therefore we suggest the Ministry of Education and Training issue regulations on strictly checking the quality of the equipment before providing to the schools.

## 2.2. For Da Nang People's Committee

We suggest Da Nang People's Committee have a planning of high schools in the city area towards meeting national standards and balancing investment sources for schools to create fairness in education; provide financial support for the managing staff in training and research.

### 2.3. For Da Nang Department of Education and Training

We suggest Da Nang Department of Education and Training research and offer better contents and forms of specialised trainings and inter-school discussions on innovation in teaching methods; invest in improving and modernising teaching equipment so that the high schools have better conditions to manage innovation in teaching methods.

# 2.4. For high schools

The principals of high schools need to accelerate investing in improving the infrastructure to create favourable conditions for staff and teachers to enhance their capacity; strengthen the organisation of seminars and contests on innovation in teaching methods; have encouraging mechanisms to motivate the innovation in teaching methods.

#### RELATED PUBLISHED ARTICLES OF THE AUTHOR

- [1] Tran Van Quang (2014), "IT application in innovating teaching methods at Phan Chau Trinh high school, Da Nang city", *Journal of Educational Sciences*, Special Issue May 2014, p. 50 52.
- [2] Tran Van Quang (2014), "The roles of high school teachers in innovating teaching methods, examination and assessment", *Journal of Education*, Special Issue October 2014, p. 203 205.
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- [4] Tran Van Quang (2014), "The roles of class head teachers in developing high school students' personality and capacity within the trend of innovating teaching methods", *Journal of Education*, Special Issue July 2015, p. 17 19.