

**MINISTRY OF EDUCATION AND TRAINING  
THE VIETNAM INSTITUTE OF EDUCATION SCIENCES**



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**TEACHING BASED INTERACTION  
IN TRAINING PRIMARY TEACHER  
OF UNIVERSITY LEVEL**

**Major: Theory and History of Education**

**Code: 62.14.01.02**

**ABSTRACT OF PH.D. EDUCATION SCIENCE DISSERTATION**

**Hanoi, 2013**

**The dissertation is completed at:  
THE VIETNAM INSTITUTE OF EDUCATION SCIENCES**

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**The Vietnam Institute of Education Sciences**  
**101 Tran Hung Dao, Hanoi**  
***At ..... 2013***

***The dissertation can be found at:***

- National Library**
- The Vietnam Institute of Education Sciences' Library**

## LIST OF WORKS RELATING TO PUBLISHED THESIS

1. Pham Quang Tiep (2010), “Neurscience approach to learning and teaching”, *Journal of Science of Hanoi Pedagogical University N<sup>o</sup>2*, (No. 12), pages 101 – 113.
2. Pham Quang Tiep (2012), “Interactive Pedagogy”, *Journal of Science of Hanoi Pedagogical University N<sup>o</sup>2*, (No. 18), pages 74 – 88.
3. Pham Quang Tiep (2012), “ Some theoretical issues on creation of learning motivation for learners”, *Educational magazine*, (No. 292), pages 20-22.
4. Pham Quang Tiep (2012), “ Teaching based interaction follows situation studies ”, *Journal of Education Equipments*, (No. 86), pages 23-25.
5. Pham Quang Tiep (2012), “Design a model of teaching based on interactive pedagogy following type of messaging - acquisition”, *Journal of Science of Hanoi Pedagogical University N<sup>o</sup>2*, (No. 20), pages 118 – 124.
6. Pham Quang Tiep (2012), “Teaching based on interaction according the style of modelling - practising”, *Journal of Science of Hanoi Pedagogical University N<sup>o</sup>2*, (No. 21), pages 134 – 142.
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## **PREFACE**

### ***1. Reasons for choosing the topic***

In modern teaching process, the interaction have been seen very seriously. It must be seen as a key principle of modern teaching. It mean that, whether who the learners, what the contents, then to teaching and learning needs to have a positive interaction between the learners with other components.

Although has many authors domestic and foreign researched about teaching based on interaction with many different approaches, different concerns, but we can say that, no one has build theoretical framework for teaching based on interaction completely. And ways are given to apply this theory in practice is superficial and very difficult to implement as well as the transfer and widespread. In general, do not match with a teaching philosophy which is very potential.

Therefore, today's research on this issue should aim to elucidate the nature of interaction in teaching based on the scientific basis from the adjacent research fields of education, which most important are educational psychology and neuroscience; shows the basic form of interaction and its impact on quality and efficiency in the process of modern teaching. From that outlines the strategy both concrete and synchronization, to carry out the teaching process based on interactions: from the theoretical framework for teaching based on interaction, deploying into the teaching technique models and them will be selected for the application to suit the learner, the learning environment and in accordance with the pedagogical capacity of the teacher.

The training of primary school teachers at the university level is taking strong innovation in both content and teaching methods, this process initially obtained some small achievements, but also revealed many disadvantages. They are mainly derived from the homogeneous process training primary school teachers in the teaching process in general, while this process has many characteristics. Characteristics not only reflected in the curriculum, in the school and teachers. This peculiarity requires the primary teacher training university degree should be interested reseaching properly, to find out impact solutions, which has the ability to improve the efficiency of teaching process. In particular, need to vigorously promote the application of methods, new teaching strategies in training process orienting activities of the learners, enhance positive interaction between the subject of teaching activities.

Starting from both the theoretical and practical basis above, we choose the research topic: "Teaching based interaction in training primary teacher of university level".

### ***2. Purposes of the research***

Designing some teaching based interaction models in training primary teacher of university level, in order to improve the quality of training of primary teacher of university level today.

### ***3. Tasks of the research***

To obtain above purposes, we identify tasks of the research as follows:

- Identify theoretical and practical bases of teaching based interaction in training primary teacher of university level.
- Suggesting some teaching models based interaction in training primary teacher of university level.
- Experiment to assess feasibility and effectiveness of proposed solutions.

### ***4. Subject of research***

The use of teaching strategies based on interaction in training primary teacher of university level.

### ***5. Scope of research***

Limit areas:

- Surveys and investigations are carried out at the Hanoi National University of Education, Hanoi Pedagogical University N<sup>0</sup>2, Thai Nguyen University of Education, Hai Phong University of Education, Hung Vuong University.
- Experiment is done at Primary Education Faculty, Hanoi Pedagogical University N<sup>0</sup>2.

### ***6. Scientific assumption***

Quality of training primary teacher of university level is not high due to the lack of interaction in the teaching process. In addition, teachers haven't had appropriate ways to enhance interaction between the subject of teaching activities. Therefore, if the model was designed based on interaction and consistent with practices of teaching activity in the Primary Education Faculty, Universities of Education, it can improve the quality of training primary teacher of university level today.

### ***7. Methodology and Research Methods***

#### ***7.1. Research Methodology:***

- Methodology of dialectical materialism
- System - structure
- Practice

#### ***7.2. The research method:***

- Group of theory research methods: analysis, synthesis, chemical systems, generalizing the resources to build the basis for the theory of the subject.
- Group of practical research methods: survey methodology, observations, interviews, product research, experiment method.

- Expert method
- Method of information processing: Mathematical Statistics.

### ***8. theoretical point to defend***

1. For a teaching theory into practical education, it must be deployed into specific teaching model (teaching technification model). That is to realize the teaching based interaction strategy, then from the theoretical framework of interactive based teaching, we have to successfully implemented the specific teaching models. And there must be ways to combine, manipulate them flexibility in practical terms.

2. Today, interaction in teaching is seen as a key principle of modern teaching. To clarify the nature of interaction in teaching need to consider it under the position of the surrounding science areas of education; in which, the most important areas are psychology and neuroscience. From clarifying nature, should recognize the fundamental interactions in the form of teaching to which organizational teaching process based on this interaction.

3. The teaching method is defined as the way teachers use to positive impact on learners and their activities. Therefore, when discussing the division of teaching methods, the most scientific way split is based on the learner, or learning styles of learners. So the modern teaching methods are divided into five groups (corresponding to the five common learning style of human), including the group of teaching methods inform - receive, the group of teaching methods model - practice, the group of teaching methods design - discover, the group of teaching method encourage - participate and the group of teaching methods situation - study. Therefore, when designing the teaching model based on interaction, it is necessary to orient the five groups of popular teaching methods mentioned above.

4. Teaching process at the Primary Education Faculty in the University of Education has many characteristics, they are shown in all three elements in the structure of teaching activities: knowledge and experience of the learners are very different, the learning contents in the curriculum are rich and multiform, the teachers is not really stable, many teachers moving from other areas to primary teacher training field, so they are different in professional speciality, pedagogical competence ... Therefore, in order to really improve quality of primary teacher training processes, need to research seriously.

### ***6. Contribution of the thesis***

- In theoretical aspect: systematising and developing the teaching based interaction theory. Including the system of concepts related interactive teaching, clarifying the nature and forms of interaction in teaching, the nature and characteristics of teaching based interaction.

- *In practical aspect*: Reseaching to assess the reality of the teaching based interaction process in training primary teacher of university level: The reality of students and learning activities based on interaction, teachers and teaching activities based on interaction, teaching and learning environment.

Designing five teaching based interaction models and some teaching technicals to implement effectively those models in primary teacher of university level training process.

## **CHAPTER 1**

### **BASIC OF SCIENCE OF TEACHING BASE INTERACTION IN TRAINING PRIMARY TEACHER OF UNIVERSITY LEVEL**

#### **1.1. Overview**

Lasting throughout history of world education, from BCE period to the eighteenth century, many education thoughts were evident his progress and many of them (which are typically thoughts of Confucius, Socrate, Comenxki, John Locke or Rousseau) were initially conceived of the basic arguments teaching based interaction. But most just stop at approximately determining the basic elements of teaching activities, and the interactions between them were not rarely mentioned. The identification of incomplete elements of teaching activities has limited the development of education in a long time.

The strong education reform in the late nineteenth century, early twentieth century opened up more towards innovation focused on learner's activities. The education thought in this period (which has two representatives are John Deway, Lev Vygotsky) were soon found the important roles of learners in teaching and teachers focus on the learners, promoting positive boost learners participate in the learning process. However, these studies mainly focused on the interactive relationship of teacher - learner and not cover all the structure and function of every element, especially environmental factor has not really been interested in research save more.

By the 70s of XX century, the authors of the Institute of Teacher Training University in Greonoble, typically Guy Brousseau studied situation theory has put the scientific basis for these pedagogical effects of learner activities to promote the highest level but does not tarnish or disparage the role of the teacher as the "initiator" and also the "finisher" a teaching and learning situations. Thus, in the study, the authors analyze some of the fundamental issues teaching based interaction, the most prominent of which is to clarify the nature and impact of environmental factors on the performance the overall teaching and learning activities of students in particular.

Recently, two Canadian educator Jean - Marc Denomme and Madelein Roy has introduced an interactive pedagogy. In which the authors have shown some essential elements in the structure of teaching activities. Analysis clarify the interactive format mostly between elements in the teaching process based on neuroscience approach. The author's theories have made a great impact on teaching strategies based on interactions today.

In Vietnam, many authors have research related to teaching and learning based on interaction. The most significant of which are the authors: Dang Thanh Hung, reseachs about collaborative learning, interaction of teachers and learners in the classroom, interactive interior; Nguyen Thi Bich Hanh, reseachs about "Measures to improve independent study skills for student in University of Education "; Nguyen Thanh Vinh reseachs about " Organizing teaching according to interactive pedagogy point in the university (faculty) of management today "; Vu Le Hoa, reseachs about "Measures applied interactive pedagogy point in teaching education courses at the university of education", Ta Quang Tuan, reseachs about "Organizing teaching based on learner - learner interaction in colleges ". The authors' researchs are important basises for our research, deployment project "Interaction – base teaching in training primary teacher of university level."

## **1.2. Some of basic concepts**

### ***1.2.1. Interaction in teaching***

Based on the definition of many different authors, in our view, "Interaction" is the mutual interaction. In order to interact with each other, they must have at least two objects, they play a dual role, both as the subject of the impact, both affected subjects. Subject and object here may be the natural or social objects and phenomena and not only be human.

"Interactivity in teaching" is the interactive relationship between teachers, learners and the environment. These interactions make their function is teaching, they are planned, organized and controlled according to educational ways by the direction, instruction on developing knowledge and ability for learners.

### ***1.2.2. Teaching based interaction***

"Teaching" is the process, in that the teacher does operations to organize and to orient to help people learn by their own activity, then have thinking capacity and capacity to act with the aim of occupying the price spiritual values, knowledge, skills, and cultural values that mankind has achieved on this basis to be able to solve the practical requirements set out in the entire life of each learner.

"Teaching based interaction" highlighted the impact the relationship between the subject of the teaching process in order to create a



development first and most important is the learners and then the other elements such as teachers, environment. Teaching process in this strategy is the process of creating and organizing, controlling the pedagogy interaction between the learners with teacher, learners with learners, learners with the environment to develop capacity awareness and aptitude of the learner interaction to a new level. Then from the new capabilities along with pedagogy interactive is created, the school continued growth during long-term learning.

### **1.2.3. Teaching Model**

According to the dictionary of education, "teaching model" is a model to guide the construction of a program, the selection of teaching materials and support teachers in their quest. Thus, the teaching model is considered a theoretical model reflects the basic components of the teaching process and the relationship between them as objectives, content, methods and means of teaching, the forms organizational learning, assessment ... Also showing components, structures and relationships of basic teaching and learning activities (stimulate learning motivation of the learner, organization and control interactions pedagogy, assessment and adjust teaching activities ...) is implemented in specific environment.

Teaching model is seen in many different levels. At the most general level, a teaching philosophy (such as collaborative teaching philosophy, or philosophical creation) exists as a theoretical model, or theoretical framework. This model describes the outline of a teaching style based on certain scientific basis. It has the function of orientation for the entire teaching system, teaching process. At the level of specific instructional model is considered the technical model, which describes how thorough the activities of teachers and students in the general direction of a theoretical model of teaching that philosophy. This also means, for the model on which we are working is the technical model (or specific model).

## **1.3. The nature and types of interaction in teaching**

### ***1.3.1. The nature of interaction in teaching***

Teaching theory indicates, interactive teaching is one of the three key principles of modern teaching. That is to teach someone to effective learning is required to create and fine-tuned interactions between pedagogical elements in the structure of the teaching activities. To see more clearly the principle of it, it is necessary to consider the nature of interaction in teaching based on the stance of the surrounding areas of science education, including philosophy, psychology, physiology cognitive neuroscience.

#### 1) The nature of philosophy

Consider interactive teaching positions in philosophy helps us have a fairly comprehensive view of this teaching strategy. We correctly

identified the basic elements of teaching activities, but also to identify the role of each component to the direction from which to organize and to control interactions in teaching process in accordance with the rule, to maximize the role of each component, thereby achieving learning goals set.

## 2) The nature of neurology

Neuroscience has clarified mechanisms of neural activity in the human learning process. Which clarifies the nature of interactions in the teaching learning process is the interaction with the external environment, with the instructor, others to study engines or consolidate learning; relatively work environment, teacher, others to perceive information about the object, the object should occupy, interact with themselves (internal interaction) to deal with heterogeneous information in the right hemisphere, interact with the icons in the left hemisphere for heterogeneous information and knowledge creation.

## 3) The nature of psychology

Cognitive psychologists assert interactive learning is the process of adjusting the functions of themselves psychologically by two mechanisms of assimilation (assimilation) and applications (accommodation). The learning process and the development of learning process is ongoing and set break equilibrium in their psychology. Thus, the impact of the external environment and teaching standpoint this is also the break relative equilibrium in the school psychology (ie create demand awareness, the needs of understanding, the needs of dominate new object). And in support of knowledge, lack of experience is compared with the current state of their psychology to provide a new equilibrium. Mechanism of interaction within the school (internal interaction) is the process of restructuring subject knowledge toward psychological balance.

Behavioral psychologists believe that the learning process is the process, in that, learners perform chain interaction S-r-s-r-s...-R (S - stimulate, R - react), including informal interactions to response to environmental impacts, there are also interactive exploration and give feedback to ultimately achieve the highest efficiency. The development of interactive sequences gradually bring subtle behavior of learners are driven by psychological factors and awareness, it is also the development of a comprehensive learners (which factors including physical, mental and emotional).

Humanistic psychologists believe that in teaching learners only engaged interaction when they have academic needs. Interaction is the way to satisfy that demand. There will not be any learning activity if they don't have motor, eager to learn. The first task of teachers need to do is search and create an environment for generating motor learning of

learners. This is a difficult task because of the learning motivation factors of the learners' psychologist. Good premise to solve this task is going into the reference system of the learners, understand them, which set out the duties and power requirements and study, direct response to individual needs of the learners, and then navigate to the highest principles of the school of humanities outlined by Gardner is "the ultimate goal of the educational system is transferred to the individual the burden of having to study".

Lev Vygotsky is representative of active psychology, based on the idea of social interaction and cultural theory in the development of science, he has proposed the concept "Zone of Proximal Development", located platform in teaching and education. He says that is interactive learning environment, teaching is interfering standing experience in the course of the zone of proximal development. Through interaction, standing experience in personal shared, challenged, improved, leading individuals to achieve new levels of development is characterized by a higher power to solve the problem independently. This level of experience to become a platform for current and adjusted the platform experienced before, come basis. Thus the learning process is constantly changing area development approach based on the interaction between the learner and the environment (teaching, the teaching, other learners ...).

### ***1.3.2. The types of interaction in teaching***

The identification and classification of interactive teaching is hard work because of the integrated nature of its activities. So far, there have been many authors with different approaches, navigate to the different research purposes in the field of education classification given in the teaching interaction. In the opinion of the author, the most accessible nature of this problem is based on the actors interact to identify and classify them. But if you rely on to classify the phenomenon is clearly difficult and useless, because the phenomenon is changing, and the classification will never end. Accordingly, the interaction of teaching can be divided into 3 main types: learners - teacher, learners - learners and teacher and learners - environment. In addition, a number of other interactions such as teacher - teacher, environment - environment. In some ways it is these interactions also affect to the teaching process.

1) *Teacher – learners interaction*: is one of the main relationship interaction in teaching. This interaction is the main function of promoting the teaching activities according to intended target. This interaction is an efficient means to both teacher and learner adjust their own operations, helping the teaching process is always in control, eliminating the possibility of diversion and ensure strength for learners. At the general level, we can describe the relationship of this interaction is as follows: The

learners through active learning, impact on the teacher of information systems in the form of questions, comments or attitudes, gestures, ... in response to this effect from the learners, teachers affect learners with information such as answers, additional information, or by encouraging the exchange of conversations with learner about others who are interested to learn to grasp the meaning of better information and useful advice for their next direction. Teaches, in his teaching methods affect people learn through hints about the direction, indicating the assumptions to be overcome, the method and means to use to achieve the learning objectives learner set. Sometimes teachers create obstacles, obstacles to increased opportunities and learning activities for students.

2) *Learners - learners interaction*: the impact process, influence, mutual exchange of information, ideas, opinions, feelings inside and between entities who learn together in order to well the learning task. Based on the nature of interpersonal interactions are divided into: 1 - Cooperation; 2 - Competition; 3 - Individual. Also according to this nature, there are authors categorized into 7 groups form in interactive learning, which is: chaos, conflict, imposing, personal, debate, tutoring, collaboration. Based on the level of awareness, the authors divided into two types of interaction: symmetric and asymmetric. Based on the degree of dependence between the learners together, some authors divide this form of interaction: interaction dependent, interactive collaboration, interaction independent of interactions.

At the level of interaction that learners participate in the learning process, we can distinguish three phases from low to high as follows: 1 - The initial stage of learning is often conducted interactions with objects outer environment. Now that the school uses the senses to affect the object, the act of learning this material makes these objects reveal signs, nature, or the laws of movement and trend dominate them . 2 - Next, the learners interact with the teacher, other learners to share and to exchange accurate and explicit cultural awareness of the original. Then, reduce subjectivity, objectivity increased 3 - The final phase of a cycle is aware of interactions with themselves or internal interactions to consider the issue, conduct sports the thinking as analysis, synthesis and evaluation for cognitive learning issues fully and more deeply.

The interaction has taken the school to develop a new level, paving the way for the creation of the learning process. Interaction learners - learners is extremely important in the learning process of each individual. Itself creates the strongest growth in the school and therefore, the organization of pedagogical interaction in the teaching process, the teacher must control the direction of movement every interaction form to this interaction (which is the most important internal interactions). Because

only when the learner actively exchange, share, or even compete against each other in school, just when they thought about the problem anguish in mind, then they are really learning and whether result of the interaction that is what it has been considered successful in teaching.

### 3) Teacher, learners - environment interaction

According to the overall approach, surroundings affect learners, teachers and their activities in the following ways: 1 - Impact from outside the subject of teaching activities, including environmental the surrounding material, classmates, family, school and society, 2 - Impact from the side of the subject, including: potential, emotions, values, capital life, style, personality ... Thus, the impact on improving teaching and learning environment to enhance the interactive learning environment to carry out an overall improvement from the surrounding physical environment: temperature, light, sound, ... to prepare the facilities, teaching equipment and utensils, creating intimate atmosphere, cheerful cooperation in the classroom; psychological preparation, learner background knowledge to participate actively in the interaction with other elements in the teaching activities to assimilate knowledge.

## **1.4. The nature and feature of teaching based interaction**

### ***1.4.1. The nature of teaching based interaction***

Teaching Based interaction is essentially a teaching strategy aimed at learners, enhance mobility of learners in the learning process and is derived from the philosophy of modern teaching as tectonic philosophy, problem solving philosophy. To clarify the nature of the teaching strategies necessary to consider it on many different levels. 1) At the macroscopic level, it is seen as a teaching point, this teaching point is based on the interaction between the basic elements of teaching activities which are mainly teacher, learner and environment. The interaction between the instructor is the purpose, the cause for the development, in which the first and most important is to develop the learners. 2) Considering at the intermediate level, teaching based interaction is seen as a specific teaching methods. At this level, it is a form of teaching specific manner, otherwise known as the technique model of teaching methods. The same ideology or theory, but it can be implemented in different models. Each model consists of a system of skill or form of action, they are sorted according to the logic and rules of implementation methods. 3) At the micro level, it is the teaching technique based on interaction. Teaching technique is generally understood how the actions of teachers and learners in a narrower scope to gradually realizing and advanced teaching methods to achieve learning goals set. Some key techniques in the teaching based interaction method: 1/ Technique of creating learning motives, maintaining excitement for learning; 2/ Technique creating teaching environment; 3/ Technique of

organizing and managing pedagogical interaction (teacher - learners, learners - learners; teacher, learners - environment).

#### ***1.4.2. The features of teaching based interaction***

Teaching based interaction expresses some features following:

- Teaching based interaction considers the interactions between the three elements: learners, teacher, environment as the purpose and cause of the development of teaching activities.

- Teaching based interaction point appreciates environment elements

- Teaching based interaction point respects the knowledge and experience of the learners

#### ***1.4.3. The conditions to proceed teaching based interaction***

To organize successfully the teaching process based on interactions need to ensure the following conditions:

1) *For the teacher*: Firstly, the teacher should understand well the nature and the core principles of teaching based interaction strategies; Second, the teacher need to master how to deploy this strategies for teaching correctly and efficiently; Third, the teacher must master some skills and techniques teaching based interaction.

2) *For the learners*: Firstly, to effective learning, learners must have good motor for learning; Second, learners must learn how to learn, in other words, they need the skills and learning strategies well; third, learners need to have the Iron will to learn to be patient.

3) *For the environment*: First, must ensure the requirements basics of physical facilities such as study rooms, lighting, sound, media technology, popular teaching; Second, ensure good other resources such as programs, learning materials; Third, need to have an institutional mechanism, clearly managed by increasing interactivity in teaching of the units related to the process of education, each relationship between the subject of the teaching process must be open, friendly, sociable, tolerant attitudes, measuring, improving for learners and between learners together.

### **1.5. Current situation of training primary teacher of university level**

#### ***1.5.1. The characteristics of training primary teacher of university level***

The training process of primary teacher university level has many characteristics, the characteristics shown in the learners, teachers and the environment: the students in Faculty of Primary Education - Universities of Education, whom knowledge , experience, style, preference for learning are very different. This difference is brought along from the mechanism of recruitment and training of the University of education. The training program spread over many areas, so specific learning content is also very rich. Requiring teachers to use to many different types of teaching method. The variety of training programs lead to a diversity of professional fields as well as the teaching style of the instructor.

### ***1.5.2. Current situation of teaching based interaction in training primary teacher of university level***

#### *1) The purpose, subject, content and methods of investigation*

- *Purpose of the investigation:* To find out the real situation awareness and use instructional strategies based on interaction in training primary teacher of university level, test the theory based on interactive teaching in practice. On that basis, proposed reasonable ways to apply teaching theories based on interaction for training primary students.

- *Subject of the investigation:* The teachers and students of the Faculty of Primary Education at the University has a long tradition of training primary teachers: Hanoi National University of Education, Hanoi Pedagogical University N<sup>o</sup>2, Thai Nguyen University of Education, Hai Phong University of Education, Hung Vuong University.

#### *- Contents of the investigation:*

+ *For the teacher:* 1- Current situation of teaching methods be used during training primary teacher of university level. 2- Status of the use of methods and techniques to enhance interaction and improve the effectiveness of teaching. 3- So the actual situation to create teaching environment.

+ *For the students:* 1- Current situation of learning activity based on interaction in the Faculty of Primary Education. 2- Situational assessment learning environment.

- *Investigative methods:* Mainly through the system in question is designed to check and send it directly to teachers, experts and students.

#### *2) The investigative result of current situation of learning activity in the Faculty of Primary Education according to teaching based interaction*

##### *1- Current status of the teachers:*

- Awareness of the teachers about interaction in teaching incompletely, mainly for interaction in teaching that only includes teacher – learners and contents.

- Most teachers appreciate the importance of interaction in teaching.

- Teachers tend to use different types of teaching method in the teaching process which is not too fond of any one group.

- In general, teachers are not really interested in the use of measures and techniques to promote interactive relationships and improve teaching effectiveness.

- When planning teaching, most teachers to fully implement the necessary actions as subjects analysis, learner analysis, goal setting and allocation of appropriate teaching content, design teaching methods, design learning activities ...

- When designing teaching methods, teachers are only concerned with learning content and the ability to make their own, with little regard to the characteristics of learners.

## 2- Current status of students in Faculty of primary education

- Primary Education Sector Students have diverse learning styles, including learning by imitation, learning by exploring, discovering, sharing and learning by experience, learning by rational thinking.

- The aim and motivation of student learning is complex. But generally they have clear career orientation. This is considered a motor inside that promote long-term learning process.

- The majority of students interviewed evaluation factors, methods and teaching techniques that teachers use the survey we have made a huge impact on the effectiveness of student learning. These are important directions for the design of specific instructional model based on interaction in chapter 2.

## 3- Current Status of teaching environment at the Faculty of Primary Education

- The majority of students interviewed appreciated the influence of environmental factors (internal and external) with their academic performance. The survey results on this environment affirm the need to interest in creating of the teaching environment.

- The results of the survey, the survey showed that the situation of physical facilities, equipment, technology, technology in science teaching at the National University of Education Primary Education today is relatively assured.

- Training Program primary teacher of university level is ensured both scientific and practical.

- Through the survey, we draw some conclusions about the psychological state of the environment of teachers and learners: First, the relationship of teacher - learners, learners - learners has made a certain commitment but to develop interactive relationships and improve the effectiveness of teaching, they need to be further improved. Second, the psychological factors of both learners and teachers, such as shyness, afraid of conflict, collision problems, lack of confidence etc. ... are still significant barriers affected the extent and effectiveness pedagogical interaction. Third, the diversity in culture, forte style, background knowledge and experience of the learners is a matter to consider when conducting organized teaching activities for students of Primary Education.

3) *The conclusions about the status of teaching activities in faculty primary of education*



From the results of research and analysis on the status of training primary teacher of university level above, we draw some conclusions as follows:

1- The lecturer in primary education faculty at university of education use many different types of teaching method. But mainly still used the traditional model, not used much these measures and techniques to enhance interactions. So effective teaching is not high.

2- Faculty Primary Education Students have diverse learning styles. Because of enrollment mechanism, because of the training programs and teaching practices. Whether that learning style, but generally students very excited when they get teachers use technology to enhance their interaction and contribute to the academic performance of them.

3- The condition of facilities, equipment and teaching today is relatively assured. Creating a good premise for teaching in general and teaching based on interaction in particular. However, the psychological environment of the students and the teachers were very complicated. To get the psychological environment conducive to teaching and learning need to be certain changes both in terms of awareness and implementation.

## CHAPTER 2

### THE MODEL OF TEACHING BASED INTERACTION

#### IN TRAINING PRIMARY TEACHERS OF UNIVERSITY LEVEL

#### **2.1. The principle of designing model of teaching based interaction in training primary teachers**

2.1.1. Ensure the positive influences from teaching environment

2.1.2. Ensure the positive interaction between teachers, learners and the environment

2.1.3. Ensure an active, creative role of learners during involved in pedagogical interactions to build his knowledge

2.1.4. Ensure the leading role of teachers in the organization, control pedagogical interactions

2.1.5. Ensure the practice of the training degree teacher activities

#### **2.2. Designing the model of specific teaching - based interaction in training degree teacher**

##### ***2.2.1. Teaching based interaction model style as informed and collected***

The characteristic of this teaching model made difference from model of informed - collected traditional teaching is it not only normal knowledge informed but also make learners want to listen and learn. Helping learners find out the learning problems; through the process of creating and processing problem of the teachers in the process of communication, presentation, explanation the learners know the method to find the knowledge - that is, how to learn. Learners in this model can

not passively receptive and have to think about the problems in the process of teaching. The technique to create "bottlenecks" in the reporting process and step by step guide learners to remove the bottlenecks that are characteristics of this teaching model and it is also the key to make positive interactions between the leading of teaching activities. Moreover, the backward relationships and the feedbacks from learners which created and handled to ensure that the teacher lecture is not nonsense information. Sometimes, the main of learning content is summarized and discovered by learner, that not only look forward to the explanation from the teachers. The steps of the model teaching - based interaction by the way of informed – collected: 1- Teachers create situations to elicit problem which is presented; 2- Teachers present problem by the way of handling situations 3- The learner reproduce, use knowledge.

\* *Some main teaching techniques: 1- Technical lectures; 2- Technical explanation; 3- Technical guide learners coordination between listening lecture and taking notes.*

### ***2.2.2. Teaching based interaction model style as a model - training***

Based on the logic of the learning process, based on experience, the learner needs to form a skill (both physical skills and intellectual skills), we design instructional Teaching – based interaction model style as a model - training following these steps: 1- Explain the practical skills (Clarifying the role of skills); 2- Introduce sample skills, behavior; 3- Practice skills ; 4- Check and adjust ; 5- Review skills; 6- Assess the form of skills

\* *Some main teaching techniques: 1- Technical performance; 2- Technical description; 3- This technique of using educational films and multimedia appliances; 4- Technical reinforce the learning outcomes of students.*

### ***2.2.3. Teaching based interaction model style as tectonics - research***

From the overall perspective, this learning model, learners go through stages or following basic steps: cognitive problems to be solved, or to receive academic tasks; experimentation, move or transform learning objects, events assessment, data collection, processing, and speech concluded the nature of knowledge. Of course every study stage of learners is planned to a clear process. That process and action strategies guide and orient learners in process of knowledge. It's just a real impact (interference in the work of the school) when studying the process of learning or false deadlock with defined objectives. And then, this teaching model is designed to the following basic steps: 1- Design the research knowledge process for students; 2- Transfer learning task; 3- Organization research, explore process of learners' knowledge; 4- Presentation of research results and conclusions.

\* Some main teaching techniques: 1- Technical design research process for students; 2- Technical motivate learning.

#### ***2.2.4. Teaching based interaction model style as encouraged - participate***

This teaching model has a function of organizing, stimulates motivate, the emotions created to facilitate the learning experience, experience, assessment and exchange of ideas and experiences, self-assessment, self-assertion. The steps in this model of teaching: 1- Identify learning issues; 2- Organize learning activities through dialogue, discussion; 3- Directions to dialogue, discussion.

\* Some main teaching techniques: 1- Technical of using questions; 2- Technical of discussions organized.

#### ***2.2.5. Teaching based interaction model style as situations - study***

In this teaching model, mission and core activities of the clearest teaching is the creation of direct teaching environment through the design of teaching situations (situations didactics). Then, flexible organized to move from this teaching situations (situations designed by the instructor) to the problem situations (problems appear in the student sychology). Then, step by step help, encourage, motivate learners solve problem situations and dominate the field of knowledge required, to achieve its objectives. The steps follow this teaching model: 1 - Designing teaching situations; 2 - Transfer of teaching and learning situations in problem situations learners; 3 - The research study to solve the learning task , 4 - Final Report.

\* Some main teaching techniques: 1 - Technical Design teaching situation; 2 - Technical interactive learning organized - who enrolled in the study group.

The function of the teaching model which is designed to be determined relative, their actual effectiveness depends almost entirely on the learner and the learning process. Only when the learner factors fit any style teaching methods, then the application and function of the specific technical training in new teaching process actually makes sense. The effectiveness of teaching methods depend on the compatibility between the functional optimization of the method and the nature of students. The experience was valuable and mobilize students to meet a specific learning task to create a specific psychological structure specific to the nature of the students at that time called availability study. Itself dominates the effect of the teaching method used in this case.

## CHAPTER 3: PEDAGOGICAL EXPERIMENT

### 3.1. An overview of the experiment

#### 3.1.1. *The aims of experiment*

To test the scientific of hypothesis, proven the feasibility and effectiveness of using the teaching model based on interaction in training primary teacher of university level.

#### 3.1.2. *The object of experiment*

The students choosen to experimental including 2 courses: K36 and K37 Primary Education Faculty, Hanoi Pedagogy University N<sup>o</sup>2.

#### 3.1.3. *The content of experiment*

The experimental process was conducted in two phases:

\* Round 1 experiment: The purpose of this experimental round are exploration and impact, on that basis, seek to apply the teaching model based on interactive training primary teacher in narrow scope. The experiment was conducted for students on subjects “Base of the natural and social world” on students of K37 primary education faculty (from 9/2011 to 12/2011).

\* Round 2 Experiment: The purpose of this round is focused empirical applications, in order to expand the scope of application of teaching models in many different disciplines in the curriculum. Experiments were conducted within the 2 subjects: “Education life skills for primary pupil” for students of K37 (from 8/2012 to 9/2012) and subjects “The teaching methods of the natural and social world for primary pupil” for students of K36 (8/2012 to 10/2012).

#### 3.1.4. *The process of the experiment*

In the two experiments, we carried out the following steps:

- Preparation of experiments: In this stage, we carried out the following tasks: fostering faculty participation experiments, planning, experimental teaching, selecting experiment and control class, building standards and scale of the experiment.

- Experimental development: empirical process conducted by the following steps: pre-experiment survey, experimentation, evaluation and adjustment of empirical.

- Analysis of experimental results, including the following works: Treating experimental results, presented experimental results.

#### 3.1.5. *Standards and scale in experiment*

##### 1) *Assessing learners*

\* The criteria to evaluate learners include: 1 - The active and effective participation of learners in pedagogical interaction; 2 - Learning outcomes (cognitive, emotional and expressive capabilities, capacity practices).

\* The way to assess

+ Positive and effective when learners participate in teacher interactions through direct observation and surveys of students who participate in experiments through questionnaires.

+ Review of the outcomes of students was conducted through the test.

### 2) *Assessing teacher*

\* Review the criteria teacher: To assess the teacher needs based on behaviors and skills to their specific teaching. Includes: 1 - Ability to research learners to develop teaching plans as well as for the organization of learning activities of students; 2 - The design skills and teaching activities; 3 - the effectiveness of leadership and organization of pedagogical interaction (leadership and management of the learners, learning and teaching environment).

\* The way to assess

Review the teachers are performed through direct observation and surveys of students who participate in experiments through questionnaires.

### 3) *Assessing environment*

\* Criteria for teaching environmental assessment: Environmental Assessment of interactive teaching is based on assessing the positive impact from the environment to the school principal and their learning activities. The main basis for the environmental assessment include: 1 - The positive impact of these factors from the external environment; 2 - The impact of positive psychological environment in teaching;

\* The way to assess

Teaching environmental assessment was conducted through direct observation and surveys of students who participate in experiments through questionnaires.

## **3.2. The result experiment**

### **3.2.1. *The experimental results round 1***

#### *1) Analysis of learning outcomes assessment*

1 - analysis of cognitive outcomes

- Average input results of experimental and control classes are equivalent.

- Average output results in cognitive experimental classes higher than the control class. Specifically, the rate of post good scores in the experimental class higher than the control class. Percentage of all average scores in the experimental class significantly reduced, in the control class decreases significantly. Besides, the control class exists at all weak points. Sugar convergence of the experimental class is always the right way forward convergence of a class of securities (This also means that the results of the experimental class awareness generally higher than the control class).

2- Analysis of the evaluation results and the positive effect of students participating in the interactive pedagogical

- Ability to interact with the environment of teaching the experimental class students only equivalent to the control layer. The reason for this is because in the first experiment (experimental exploration and impact) will apply all the technical model based on interactive teaching style messages - inclusion. Thus expanding interactive environment for students in the experimental teaching process much less.

- Capacity of students who participate in interactive learning - teachers in the experimental class significantly higher than the control class.

- The active participation of students as learners interact - the learners in the experimental class also higher than the control class.

From the above analysis we can conclude that the experimental teaching initially achieved success not only in terms of the results of the study are aware that both consciousness and the capacity of students to participate in the relationship interaction with the environment, teachers and fellow students in the learning process.

### *2) Analysis of instructor evaluation results*

Lecturer teaching experimental classes are better appreciate the design capacity of teaching and educational activities (including design capability objectives, content, design learning activities of the school, designed methods and teaching techniques, design of learning materials and teaching facilities, teaching design environment interaction).

Capacity in leadership, organization of interaction Pedagogy (capacity persuade and collaborate with learners, communication and capacity in dealing with learners, faculty use the technology, media, institutional capacity officials classes and study groups, leadership competencies and organizational interaction between the subject of teaching activities) of the teachers in the experimental class also overestimated the control class.

### *3) Analysis of environmental assessment results*

Quality external environment assessment learners are doing pretty well in both experimental classes and controls. However, the environmental quality of teaching psychological results assessing the difference between the two layers and tilted toward the experimental class.

### **3.2.2. The experimental results round 2**

#### 1) Analysis of results learners review

#### 1- Analysis of results perception of school

\* Subject: "The teaching methods of the natural and social world for primary pupil" (K36 class)

- The statistical results showed that awareness point average input layer and double-layer empirical evidence equally.

- Average of awareness where the experimental class with a grade higher than controls. Growth rate, points good and excellent in experimental classes higher grade controls. Of the first convergence of experimental classes are right in your face first layer convergence controls. This also means that the results of the experimental class awareness was higher visual grade controls.

\* Subject: "Education life skills for primary pupil" (K37 classes)

- The statistical results indicate that, with an average input of class awareness and class empirical evidence similar pair.

- Average of awareness where the experimental class with a grade higher than controls. Growth rate, points good and excellent in experimental classes higher grade controls. Of the first convergence of experimental classes are right in your face first layer convergence controls. This also means that the results of the experimental class awareness was higher visual proof double layer of skills education courses for primary pupil.

2- Analysis of results positive reviews and effectiveness of learners participating in these interactive Pedagogy

Generally the students' proficiency in performing interactions with the environment, with the instructor, classmates in experimental classes are evaluated with a grade higher than controls.

2) *Analysis of instructor evaluation results*

Survey for students' health, we find that people in the experimental class taught generally appreciated than you teach in class sometimes proof of capability to design teaching, educational activities and leadership capacity, organizes interactive pedagogical process of teaching, design capabilities have learning environment interaction, learners are enabled and active learning, performance incentives, encouragement learners.

3) *Analyze the results of teaching environmental review*

Teaching environment in general through student reviews provide tilt experimental class in a positive direction.

Consequently, the evaluation results on learners (results awareness, positive, and effective capacity to participate in interactions with the instructor, classmates, environment) teaches you about the review (to efforts to learn, study learners and learning, the capability to design teaching and educational activities) Evaluation of teaching environment (physical environment and psychological environment) in both experiments showed that mortality these methods and techniques based on interactive teaching (design of the) effective first step in the actual

teaching process for students of Primary Education Faculty, University of Education.

## CONCLUSION AND RECOMMENDATIONS

### 1. CONCLUSION

1- In recent years, the training of primary school teachers in pedagogical universities has been innovated but results are still limited, highly suitable with requirements professions's practices yet. The main cause of this problem in the training process, which is the theoretical program, at practice, learning environments lack interaction, teacher-student relationships that impose less severe on the coast inspire and promote creativity, independence today hoc. While, interactive teaching is considered as one of the key principles of modern teaching. That is, whether the learner is, what is the educational content, teaching methods matter how well the need for interaction between the components of teaching activities. Therefore, to study based on interactive teaching in primary teacher training university degree is a viable approach in the reform of teacher training methods primary current.

2- The nature of the interaction in teaching is to clarify the position in the surrounding areas of science education, as follows. 1 / Under philosophical stance, interactive teaching is both bold reflection on the relationship principles and common development of the material, the phenomenon of objective reality. Interaction between the active components in the teaching of conflict resolution within the teaching activities. It is the most powerful force to bring about the development of teaching and learning activities in general and learning in particular. 2 / Under the standpoint of psychology, interactive teaching is stimulated and the chain reaction between teachers and students with the external environment (behavioral psychology) is the process of adjusting the of psychology itself in two mechanisms of assimilation and application (cognitive psychology) is a method to satisfy the needs of knowledge, awareness and assert themselves (humanistic psychology) is method creates a constantly shifting areas of student development approach (psychological operations). 3 / Under stance neuroscience of perception, interaction with learners and the teaching environment is the use of the senses to enrich the heterogeneous information in the right hemisphere. Interaction within the school (with interactive icons have) is the process of transforming heterogeneous information in the right hemisphere of the identifying information (ie, knowledge in the form of language models , diagrams) and persisted in the left hemisphere.

3- From the clarification of the nature of interaction in teaching helps us to affirm its importance in the teaching process today. Simultaneously



bring both directions are generic, that is both specific to proceed based on interactive teaching: at the macro level, based on interactive teaching is seen as a philosophical perspective or teach school based on the interaction between the basic elements of teaching activities. This view embraces meaningful direct teaching the whole process: from development objectives, content, teaching methods specific organizational form of teaching to the test evaluation, from design teaching to execute it on the actual curriculum. At the intermediate level, we consider interactive teaching based on the form of specific teaching methods, then it corresponds to the model of teaching and learning techniques based on interaction. But at the micro level, the teaching techniques, ie how to organize and conduct interactive teaching based on the conditions and specific situations in the classroom. So, to put this teaching strategy from the theoretical aspects of reality, then it must be concretized into specific instructional model. Then, these models were selected and combined in teaching to suit the learners, teachers and teaching environment.

4- Practice training primary school teachers have many characteristics, characteristics revealed in both the learners, teachers and learning content: multi-level learners, learning different forte, foundation diverse knowledge, the teacher is a big difference in the field and professional qualifications, specialized in the training of primary school teachers, training programs spread across many fields of science. In addition, studies on the status of teaching in primary teacher training university degree that this process lacks interaction. This is partly due to the methods that teachers use to teach is traditional, yet understanding of teaching techniques by increasing interaction, the other part is due to the lack of skill learning based on interactive learning , teacher relationship - between the game and learn together less open, friendly, supportive, reluctant learners, collision problems, his conflict. Therefore, to improve the quality of primary teacher training university degree today, it should be studied seriously by increasing interaction and taking into account the characteristics mentioned above.

5- From the theoretical basis and practical clarification of the subject, we propose five models based on interactive teaching and learning techniques, respectively, are considered to be a specific step teaching strategies based on the level of interaction from theory into reality. Among them: 1/ model based on interactive teaching style message - is obtained from the integration of teaching theory based on the theory of interactive teaching style informed knowledge. It is suitable for use in teaching the theoretical content, academic, for students interested in learning simple style in mind. 2/ teaching model based on interactive modeling style - practice is the integration of the two theories, but it is suitable for teaching

academic content is the behavior, skills, samples of the nature of physical movement. 3/ teaching model based on interactive tectonic style - compatible explore learners tend to favor working practices. In this model, the participants learn to interact with your environment and the degree of physical activity and through which occupy the knowledge and skills to comprehend. 4 / model-based teaching style encourages interaction with nature is a way for people learning organization actively exchange, share in these situations, the experience of inter-personal relationships to brighten expressed in terms of the value of academic content. It is compatible with the ad hoc communication, love to share and get shared from teachers, from peers. 5/ model based on interactive teaching style situation - research is the integration of teaching theories based on interaction with the type of teaching method encourages rational thinking, logical thinking based primarily on the problem of learning content. In this model, the school made major interactions with peers, especially inner interaction to problem solving and learning tasks.

6- The models and teaching techniques based on the above interaction has been used to teach science experiments in elementary education at Hanoi Pedagogical University 2. Although not applicable to all models and experimental techniques proposed teaching (mostly new models and experimental techniques based on interactive teaching style message - receiving, situations - study research, encouraged - to participate), short experimental time (two-phase), much less the subjects (3 subjects), but similar results obtained for the purpose of meeting the proposed research, the first step confirms the correctness of scientific theories, the quality of the models and techniques proposed in teaching the subject.

7- However, due to limited implementation period, as well as limiting the scope of the research study, the thesis work has been designed and introduced several models based on interactive teaching approach and the perception of individual authors. This problem should be concerned more research not only for scientists but also the classroom teacher to put more models based on interactive teaching approaches by others, as appropriate practical training with lines of, consistent with the objects of different learners. Especially build the necessary skills to perfect the system, technology and training based on interactive learning of all students and teachers, design skills and teaching environmental organizations, especially environmental psychology to the process teaching in the classroom is truly interactive process of learning positive, simultaneous lip of the bowl he has the opportunity to develop the best.

## 2. RECOMMENDATIONS

1- For the pedagogical university and elementary science education: First, investment is needed to equip the facilities and teaching equipment, especially the materials and technical means of teaching the as the internet-connected computer, projector, interactive whiteboard ... second, to build environmental management mechanism by increasing teaching stuong work. For example, the school should be directed to specific units in the field (such as medicine, training room, computer center, library ...) create the most favorable conditions for the student's learning process member. Department of Primary Education with the leadership and management specific to create unity, commitment, friendliness, openness between faculty members with students, between students with students.

2- For researchers and lecturers in the department of primary education in university teaching: need for a new approach to build more specific teaching model based on interactivity. At the same time, construction of perfecting the system of complementary skills and techniques based on interactive learning, to contribute to the theory based on interactive teaching on school life and improve the effectiveness of teaching really each subject, each grade. Affirms the true value of teaching theory potentials.