Section 2. Gender Education

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SOME METHODS TO IMPROVE SELF-LEARNING ABILITY OF MTO CADETS IN GENERAL PHYSICS

Abstract: In the present day, the more and more modern life leads to the development of science and technology revolution. With the target of forming widely studying environment, it is very necessary to keep learning for a long time, even during our life. Moreover, learning, together with the role of learners is always a key for modern education. With many modern methods applied in educating process, there are many significant changes about how to teach or how to learn. Some people say that teaching duty is to provide methods for learners as well as to help them to overcome problems during learning process. Inside military schools, self-studying of each cadet becomes an important factor to gain achievement in the education environment easily. Thanks to self-studying well, the cadets have transferred from being given lessons by the educators to acquiring knowledge themselves. From this, it is worth noticing that the learners can not only get many opportunities to improve themselves but also they can do many creative things to know how to solve the problems during their learning even orientating future jobs effectively

Keywords: Self-studying, General Physics, Self-Learning Ability.

Introduction

Self-learning plays a key role in terms of education in general as well as studying in particular. Thus, it helps cadets to deepen knowledge, consolidate and keep deeply in mind of essential information what is taught. Furthermore, thanks to the ability to self-analyze and self-synthesize documents, students can develop their ability to apply the knowledge learned in solving many problems in learning process. Above all, self-learning helps cadets not only to have a pos-

itive attitude, but also to know how to work independently and effectively. From this, it is considered as a significant factor to develop good personality traits of the students in learning and to get success in teaching.

Self-learning: A conceptual framework

Self-learning is an active and independent activity for understanding and acquiring knowledge as well as developing skills for oneself. Regarding to the concept of self-learning, it is to self-study knowledge,

to update information and self-practise more with a purpose to formulate skills.

According to Dang Vu Hoat (2003), teaching self-learning for students is a basic form at university. It is the cognitive activity of individuals aimed at mastering the system of knowledge and skills which are conducted not only by the learner himself inside or outside the classroom but also in accordance with prescribed curriculum and textbooks. Moreover, it is known that self-study is the activity of acquiring knowledge, improving skills, experiences in the history – society of human beings in general and of the learners themselves (Thái Duy Tuyên, 1998). With respect to self-learning, it can be interpreted as to be a creative independent activity of learners to acquire, consolidate and apply knowledge. Self learning is a personal cognitive activity which the learners can self-organize their perception creativity process independently to implement the acquisition of knowledge, to carry out processing and accumulation of knowledge, to develop creative thinking as well as to improve skills, especially such as: occupational skills and soft skills... (Tran Dinh Tuan, 2014). In the doctoral dissertation (Nguyen Thi Bich Hanh, 2006), “The measures to improve the self-learning ability for pedagogical students from the perspective of interactive pedagogy” According to the author, self-learning of students is not only a core part of learning but also is a component of teaching during undergraduate teaching process. This is considered as a process which self-reliant students to solve the studying task set by the teacher based on teaching situations in the classroom. Moreover, it reflects the autonomy, positivity, independence and self-control of learners in the learning process under the guidance of instructors. From the above point of view, it is said that self-learning is a form of individual cognitive activity in which learners can define their learning objectives, select learning content, know how to organize their work as well as their self-study activity in a reasonable dynamic way with highly effective quality.

Self learning competence

The concept of “competence” arrives from the Latin language “competentia” which means meeting. In the present day, the concept is understood in many different ways. Capacity is defined as the proficiency and the ability of the individual to perform a good job. In this article, we argue that: “Ability is a rational combination of knowledge, skills, and willingness to do solving-problem tasks actively and effectively.” The capacity structure consists of three main components: Knowledge, skills, attitudes. In the doctoral dissertation of Luong Viet Manh (2014) “Formation and development of self-learning capacity for students in physics teaching at pre-university universities”. As a matter of the fact, self learning is the ability to undertake knowledge-based learning, self-learning, responsible and effective self-learning. In the doctoral dissertation of Luong Viet Manh (2014), “It focuses on formation and development of self-learning capacity for students in teaching physics at national pre-university universities”. As a matter of the fact, it contains the ability to undertake knowledge-based learning, self-learning, responsible and effective solving problems in self-learning. In the doctoral dissertation of Hoang Phuc (2017) “Self-study is related to physical ability of learners with the purpose to independently explore, create, self-discover, solve on problem task, adjust their learning to occupy and expand science knowledge.” With the above points, self-learning ability is the ability to self explore, to self perceive and to apply knowledge in the same situation or new situations with high quality.

Some methods to develop self-study capacity for learners

Method 1: Build the motivation and the need to study properly for the students.

Self-study is an independent individual activity in order to develop self-study ability for learners, first of all to build the motivation and the need for proper learning of cadets with the purpose to create motivation for self-learning. Understandably, the learner’s motivation is the psychological factor that reflects im-

portant knowledge to satisfy the needs of the learner, which orientates, motivates and maintains learner's learning activities to gain knowledge. Motivation of the students at MTO in learning general Physics process is understood as the doings to inspire cadets in the course of study of general physics. When learners are motivated to learn positively, they can form self-discipline, motivation, even promote learning activities, gain achievement in learning easily as well as have desire for self educating. As a matter of fact, motivation in learning is an urging activity with the identified results based on the particular training need. There are 4 groups of learning motivation: 1) social and political motivation; 2) cognitive motor; 3) military career motivation; 4) personal motivation. All these four types are not spontaneously formed, but they are improved from the inside individual. Therefore, in the teaching process of General Physics, lecturers must select contents, methods and means of teaching with the organization of appropriate teaching methods to stimulate the interest of students in the activities in class time. The teachers need to use the effective methods for learners to focus on the content of the study, to identify the learning task, to participate in the lesson, to discuss and to write notes; to have deep understanding of physical knowledge as well as the application of knowledge acquired in solving problems with practical contents related to the subject.

Method 2: Adjust the teaching methods towards enhancing self-study ability for learners.

The teaching methods in the military schools are closely linked with the training objectives, which always bring into play the high level of activeness, active initiative as well as the cooperation among students in learning.

In any job, if you find a interest, you will be stimulated. However, if you lose the interest in career, you will not get easily the high promotion. For cognitive activities, creative activities, learning activities, when there is no interest, the results will not be high; Even learners have negative feeling. Appealing learning is essential to develop self-learning capacity for cadets.

Using problem-solving tasks is considered as a creative teaching technique through problematic situations that often create the learners' needs to discover and solve the problems as their own needs of knowledge as well as the level of awareness of the trainees with the problems set by the trainers. Using problem-solving tasks in teaching process in General Physics has three basic features:

Firstly, the instructors give some cognitive problems with the high contradiction between what to be known and what to look for in front of the students. Secondly, the learners receive the contradiction of the cognitive problems from their inner. In other words, the teachers often have the learners in a problematic situation which being a pressing need for them to solve. Thirdly, through the process of solving the risk tasks, the learner can master the contents and how to solve them in a positive and exciting way. The first step in using a effective method to solve the problem is to create a problematic situation. This problematic situation or the learning situation is a psychological state which a cadet faces a difficult situation but the lack of knowledge prevents him from solving it. The cadets need to have updated information and new knowledge.

In the teaching process, teachers not only need to design their activities for the trainees but also innovate the way of evaluating their ability. They are willing to guide learners to work by themselves, suggest useful resources for studying and apply with other methods to achieve the highest efficiency in educating process.

Method 3: Guide the content and methods of self-study for students

Researchers on modern teaching theory inside or outside Vietnam state that the interaction between teaching and learning activities reflected in the process of making the relationship between the teachers and students.

In the above-mentioned system, the teacher plays the key role as the subject of the pedagogical impact on the student's self-study process. This is shown on the face of the learner's self-learning: evoking the

need for students as well as the desire for learning, creating learning situations; Organizing, guiding the self-study process of trainees; Evaluating and guiding students to self-assess as well as self-conclude on their cognitive results.

The process of instructing students is an important measure that greatly influences the quality and effectiveness of self-learning. Self-study content covers all academic work undertaken by the individual and the groups. Content guidelines and self-study methods include the following two main parts:

- Guiding self-study for cadets becomes a compulsory content.
- Orientation of research to understand deeply the issues in the contents of study, to encourage students to participate in scientific research in order to promote the positive and creative independence of learners.

In the syllabus of the subject, teachers need to guide, help students practice self-learning skills. Through teaching methods of teachers, together with the form of teaching method for students, there are some following forms: – Planning Skills and Practical Skills

Method 4: Regularly check the students' self-study results and instruct the students to self assess

Assessing is the process of gathering information about learners' performance according to the training syllabus. By the way, teachers can evaluate the teaching process, including applying methods, using means of teaching and finding out the way to classification student. The results of the study are also to check and evaluate the level of gaining the objectives after each lesson (or each part) of the learners, to determine the level of knowledge and skills learned based on the requirements of the teaching program. Especially, through examinations and assessments, the trainees can know how to assess their cognitive competence step by step, improve their own learning in higher, check and self check. The teachers should examine and evaluate learners' learning results in adjusting their teaching activities, learning activities of

the students and should gain the effect of assessment on training orientations and the educational management of their subjects in the school. The assessment of the results become more accurate only when it is carried with high objectivity and orientation to evaluate the ability of self-learning because it will not only have the effect of stimulating self-discipline on students but also build firm independence and strong determination in the study process. With a respect to the article, it shows the principles for examining and evaluating learners' results in teaching General Physics at MTO as follows: Firstly, teachers can not only improve the competence of learners, help learners know what they have learned and develop the self-learning capacity for the learners but also can adjust their teaching methods. The results of the assessment are evaluate the ability to observe, collect information, identify and solve problems, organize teamwork, have social interaction, perform presentation in front of the crowd, find out evidences to solve problematic tasks, show disagreement in groups, develop the capacity to produce new knowledge, etc. All of these abilities must be expressed, have two-way feedback during the evaluation. It is necessary for the educators to limit the assessment through the type of memos, remake of the lesson or sample given by the teacher, etc. Because this will destroy the creativity of the students. Secondly, testing and evaluation is a process that takes place throughout the teaching and learning process. Not only do the teachers use the methods and techniques used to assess learner effeciently.

Conclusion

Self-study of the students at MTO in the course of General Physics is one of the key factors in the quality of learning and training. The impact of the trainers also must be based on the self-learning efforts of the students. it has good results in teaching. Forming self-learning ability for students becomes a particular way to help them create their own needs, motivation, interest in learning in order to improve their neccessary skills to overcome difficulties. The

acquisition of knowledge in training is said to be the key to train the students to work independently. This will help the cadets to gain achievement in self-study and to do research throughout life after graduating.

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