

# Building the Academic Dynamics for Students to Develop Self-learning Capacity in Module Chemistry at Medical College

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**Abstract** Self - studying activities that are to develop self-learning ability for students, first of all, we need to build the dynamics, proper learning needs for students to create the self-learning motivation. The origins of learning motives can be externally required by the school, family, and society.ect. can also appear from internal such as: from the request of awareness, from the desired needs of interest to society, from excitement or belief and from the passion of the students. The student motivation can be divided into two basic groups: motivation for excitement in perception and motivation in learning.

**Keywords:** *self-studying ability, academic dynamics, interest in awareness, and liability acadmic*

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## 1. Introduction

Self-sudy, self-research is of special importance in the transition from "the training process to the self-training process" A self-study would bring to the forefront the importance of self. it would urge those who engage in self-study to be critical of themselves and their roles as researchers and teacher educators [1]. According to the education dictionary: "Learning is the process of contemplation, read and re-read, repeated to remember, to imitate, to understand, to do" [2] or "Learning, the core is self-learning, is the process of internal development, which is mainly self-expression and transformation, self enriching its value by receiving, processing and transform information outside of inner knowledge of oneself" [3] According to Mohd. Yusof Abdullah, Noor Rahamah Abu Bakar & Maizatul Haizan Mahbob (Faculty of Social Science & Humanities, Universiti Kebangsaan Malaysia): "Learning is a process which occurs in a social context and involved interaction between students and lecturers. Effective learning process occurred when both lecturers and students interact and actively participate in the learning activities. In any learning contexts, both educator and learner are the main actors. As a main actor, educators be it lecturers or teachers and learners, that is, students play complementing role in the process of learning. Lecturers have the responsibilities to teach, guide, motivate, facilitate and mould learners to become a useful, caliber and competent person. Learners, on the other hand

should absorb, seek and apply the skill and knowledge shared in the classroom or other learning activities. These complementing engagements between lecturers and students do generate conducive learning environment" [4]. So building self-study motivation, self- research is the key, which is of particular importance in credit-based training at medical colleges. In the form of credit, students are center, in addition to the knowledge of lecturers communicated in class, students must study by themselves, study more documents. The self-study of students plays a very important role, it is the factor directly improving the quality of training at medical colleges. In addition, self-learning also contributes to improve the intellectual activity of students in the acquisition and understanding of new knowledge, training for students have independent way of thinking, independently solve problems in too studying, helping students to be more confident in choosing their own lives, and motivating students to learn, to reach the pinnacle of science, to have ambition, to dream. From the real course of teaching chemistry to credit for students at Tien Giang Medical College, the writer has exchanged some experiences on building motivation for students to develop their self-learning ability of the chemistry at Tien Giang Medical College.

## 2. The Self-study Reality and Students' Dynamics to Study in Chemistry

Self-study plays a very important role in the learning process of each student. Can students have the ability to

learn? At what level? In answering these questions, I really evaluated the self- assessment process as follows. Here are the results of the self- study of the Chemistry in some classes:

Ordinal number	Class	Student number	Students don't participate in self-study	Self-study score under 5 points	Self-study score from 5 to 7 points	Self-study score over 7 points
1	ĐD- B01	68	15	25	20	8
2	ĐD- B02	69	14	17	10	9
3	ĐD - B03	58	10	8	22	18
4	ĐD -B04	71	20	15	30	6
5	ĐD- B05	70	18	17	25	10
6	ĐD -B06	76	12	10	38	16

In parallel with this assessment I did a survey about the students's motivation of students of Nursing College of 9th grade Nursing College students at the Tien Giang Medical College including questions, which were mainly questionnaires with multiple choice test questions.

The content of the questions focuses on some basic criteria: Students' understanding of self-study in general and self-study of Chemistry in particular, self-study and psychological manifestations in Chemistry. Through the survey and results of self-study assessment of students, I see that students of Tien Giang Medical College also have consciousness built in self-study but not high, answer the question why the students' self-study is not high, the majority for the following reasons:

**First:** Passivity of students are lazy reading books, reviewing the lessons at home, just waiting to attend class is to study, no investing in specialized knowledge, although it is equipped with textbooks, the lecture is available in hand.

**Second:** Students only learn what the lecturer mentioned in the class.

**Third:** Students have not learned the method of self-study and the way how to learn, especially how to prepare the new lessons at home for the next class.

**Fourth:** The another major obstacle that students are difficult in the economics, so they have to work partime, sometimes they can't come and attend their classes, they don't have time for self-studying, besides that the quality of studying is poor

**Fifth:** Group study has met the difficulty by having different schedules.

**Sixth:** There are no rooms for students to self- study, especially for group study.

**Seventh:** Sometimes group work has still laid the blame on each other, not promote the self-learning in learning.

Through the results of the survey, to overcome the causes of the process of students' self-study is not high. I found the ways how to be necessary to build *the academic dynamics* for students to develop their self-study ability in chemistry at Tien Giang Medical College in the future.

### 3. Build the Academic Dynamics for Students to Develop their Self-study Ability in Chemistry at the Medical College

Many psychologists have confirmed: learning- student activities are motivated by many motivational expressions such as: learn for what, what motivates students to study and all the stimuli for their learning. According to the author "Phan Trong Ngo" "Student motivation is what their learning must achieve" [5]. "Student's motivation is what their learning must achieve." When people have the need to learn, the goal is to achieve that appears motivated studying ... This will encourage them to do more to acquire knowledge, to show their abilities. Origins appear from the outside (school, family, society ...), It can also come from within (from cognitive needs, socially desirable needs, from trends, excitement or beliefs, students' passions). Student's motivation can be divided into two basic groups: motivation for excitement and motivation in learning [6].

Motivation in perception shapes people in a natural way when the lesson is realistic, interesting and contains a lot of conflict, stimulating curiosity. It will appear frequently when the instructor creates problematic situations, organizes cognitive games, organizes group discussions or measures to stimulate positive behavior from students.

Motivation of responsibility, students must be aware of learning, showing responsibility for themselves, family, teachers, reputation prestige in front of friends... Through that formed the sense of discipline in learning, seriously self-realization of all tasks, study plans as well as requests from lecturers, or study groups.

Both academic dynamics don't form spontaneously, they are formed and developed in a self, arising from within the Students on the basis of direction, help, fostering of lecturers. Good learning motivation is built, formed in the course of students to gain knowledge with instructor guidance. In order for students to have the right motivation to study, the lecturer needs to first raise the awareness, the learning object, the source of self-awareness, the positive learning in the students. Lecturers can make the following suggestions:

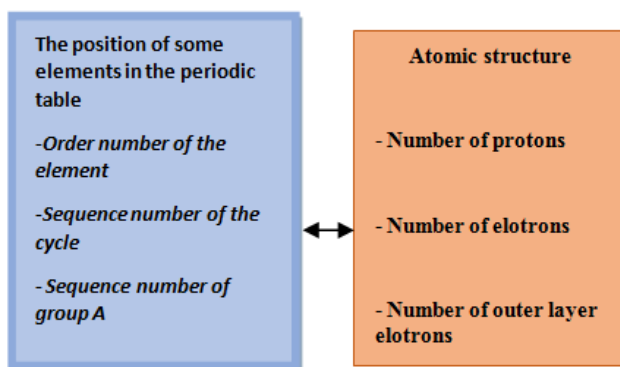
#### 3.1. Raise Students' Awareness of the Objectives, Requirements of Learning Subject and Consolidate Learning Beliefs

Defining learning goals is an important source of motivation for learning. A goal is something that is personally aware of it and is trying to achieve it. Raising the awareness of students about the objectives and requirements of the subject, helping students see their current level is lower than the target set from which conscious effort strives to achieve high results. more in learning. To accomplish this, faculty members must disseminate their learning objectives and requirements from the beginning of the classroom to the subject. At the same time, students should be aware of the meaning and

practical value of learning contents, which stimulate the desire to learn the lesson by:

**First**, before each lesson, what does the teacher need to show the target student what the lesson will tell them? What do they mean in science and real life? How can they be used? For example, when studying the periodic table of chemical elements, teachers can introduce the knowledge content that students will approach. The meaning of the lesson is:

1) *Knowing the position of an element in the periodic table, it is possible to infer the atomic composition of that element and vice versa. From there, students learn the biological effects of elements in the health sciences*



2) *Know the location of an element in the periodic table, which can infer its basic chemical properties. Since then, scientists have been aware of the biological effects of elements in the health sciences.*

Ex: The elements of groups IA, IIA, IIIA, IA, IIA, IIIA (excluding hydrogen and boron) are metallic. The elements of VA, VIA, VIIA, VA, VIA, VIIA are non-metal (except antimony, bitumen and polonium).

3) *Based on the laws of change of the properties of elements in the periodic table can compare the chemistry of an element with the surrounding elements. From there, students know how to use them in pharmaco-chemical production*

Ex: Si, P, S elements belong to the same cycle. In the order of increasing nuclear charge we are Si, P, S. In the cycle, the direction of nuclear charge increases, the nonmetal increase. So P has a non-metallic nature than S and is stronger than Si.

**Secondly**, the lecturers need to create the student's confidence in his or her ability to successfully implement learning goals to motivate learning. To do this, the learning objectives must be clearly defined, measurable, measurable and achievable.

**Third**, the lecturers need to understand each student's strengths, to show them their strengths to develop, the disadvantages to limit and overcome. Special forms of reward, criticism and punishment should be given in the right time, in the right place, in the right way to motivate the learners.

### 3.2. Create a Favorable Environment, Positive, Full of Love, Cooperation, Responsibility in Learning

Human behavior depends on many possibilities of objectivity, especially in students whose personality has

not been formed stable and has no main purpose of life as the first-year students so the learning environment should have The favorable conditions are the fertile soil to nurture the excitement of development: creativity exercises, abundant learning resources, expectations, the encouragement of teachers and families, the love of friends ... ensure that every day to school is a happy day, each class brings again attractive things, opportunities for each child to show their own ability, to implement This instructor should pay attention to some of the following points:

+ Lecturers must be the bridge of the members.

Example: grasp the situation of the class, family circumstances, personality of each student, ask, help, remove difficulties for students.

+ It is necessary to create serious learning contests, organize emulation, help each other among team members, class.

+ Building team, studying group at the beginning of the term.

Example: Study groups should not be too crowded, usually between 4 and 8 students, aiming for a variety of abilities, characteristics, conditions, circumstances ... of the group members.

+ Building up the right relationship in the collective

Example: dependency, joint responsibility between members, solidarity cordial, respect for personal relationship

+ Organizing activities, exchanging in the collective to students have more opportunities to participate, revealing their pros and cons to be trained, molded ...

## 4. Conclusion

The student's increased interest in learning is largely influenced by the lecturers. Therefore, lecturers need to constantly improve their skills, moral qualities, occupations, improve their teaching, stimulate learning for students, ensure the knowledge transfer more and more accurate, attractive, have quality. In addition, lecturers need to help students see the meaning and role of subject knowledge in life, always apply knowledge learned in life and solve situations in life. in various aspects; Learn how to learn the right subject, increase the amount of self-study, master theoretical practice. Above are some experiences in building academic motivation for students to develop their self-study ability in chemistry at Tien Giang Medical College, contributing to improving the quality of self-study in the school. Medical College in general and Chemistry in particular. I look forward to receiving exchanges of valuable experiences from colleagues so that I can better teach Chemistry.

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Self - studying activities that are to develop self-learning ability for students, first of all, we need to build the dynamics, proper learning needs for students to create the self-learning motivation. The origins of learning motives can be externally required by the school, family, and society.ect. can also appear from internal such as: from the request of awareness, from the desired needs of interest to society, from excitement or belief and from the passion of the students.Â I found the ways how to be necessary to build the academic dynamics for students to develop their self-study ability in chemistry at Tien Giang Medical College in the future. 3. Build the Academic Dynamics for Students to Develop their Self-study Ability in Chemistry at the Medical College. Self - studying activities that are to develop self-learning ability for students, first of all, we need to build the dynamics, proper learning needs for students to create the self-learning motivation. The origins of learning motives can be externally required by the school, family, and society.ect. can also appear from internal such as: from the request of awareness, from the desired needs of interest to society, from excitement or belief and from the passion of the students. The student motivation can be divided into two basic groups: motivation for excitement in perception and motivation i For students to be successful in self-directed learning, they must be able to engage in self-reflection and self-evaluation of their learning goals and progress in a unit of study. To support this self-evaluation process, they should: regularly consult with the advising instructorÂ Studentsâ€™ roles. Self-assess your readiness to learn. Define your learning goals and develop a learning contract. Monitor your learning process. Take initiative for all stages of the learning process â€” be self-motivated. Re-evaluate and alter goals as required during your unit of study. Consult with your advising instructor as required. Advising instructorsâ€™ roles. Build a co-operative learning environment. Help to motivate and direct the studentsâ€™ learning experience. Facilitate studentsâ€™ initiatives for learning. When a quantum chemical calculation or molecular modelling process has been called for, we have usually provided the solution with PC Spartan proâ„¢ because of its common availability. In general, we have adhered rigorously to the rules for significant figures in displaying the final answers. However, when intermediate answers are shown, they are often given with one more figure than would be justified by the data. These excess digits are indicated with an underline. We have carefully cross-checked the solutions for errors and expect that most have been eliminated. We would be grateful to any rea