

APPLICATION OF THE CASE STUDY METHOD IN TEACHING CHAPTER "BASIC RULES OF FORMAL LOGIC" IN LOGIC SUBJECT

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Abstract

Case study method is one of the active teaching methods applied to maximize the students' activeness in the learning process. There by contributing to the innovation of university teaching methods and also meeting the training requirements under the credit system for the university system. This article presents the structure of the case study method and its application in teaching the chapter "Basic laws of Formal Logic" in Logic subject.

Keyword: Teaching method, Case study method, Situation, Rule.

1.INTRODUCTION

The inherent situation has been used for a long time in the history of world education, even since Antiquity. In the East, Confucius (551-487 BC) is seen as an example of a positive education method for posterity. With the experience of using real situations and stories encountered in daily life to impart knowledge in the direction of raising problems, personalizing reception, in order to impart knowledge and commandments to students. mine.

In the West, around the end of the 19th century, the use of case in teaching was quite popular. In 1870, the Harwad Law School of Business was the leading institution in the application of the case teaching methodology (initiated by Christopher Columbus Langdell). In 1919, the University of Western Ontario in Canada also began to apply the case teaching methodology in business teaching (the two initiators were W. Sherwood Fox, dean of the basic department, and KPR Neville, dean of the department of education. sex) [3].

Case study is also of interest to Soviet (former) and Polish scientists. In particular, it is impossible not to mention two researchers, V. Okon (Poland) (1976) and I.la. Lecne (1977) [6]. In general, the teaching style using case mentioned by the authors is problem-solving teaching and problem-solving teaching. The experiences using the situation emphasize the interaction between the teacher and the student, in which the activity of the teacher is noticed. Problematic situations in this type of teaching are not merely real-life situations but also include theoretical situations arising in the process of perceiving learning materials. This form of teaching is applied in professions, in management fields, in production activities, in scientific research activities and in vocational training.

In Vietnam, from ancient times, our ancestors knew how to build folk stories, fables, and fairy tales to teach people.

In daily life, behavior is increasingly concerned, and often invoked in conversations, given to debate, exchange to teach others with many diverse and rich forms on the Internet. all aspects and for all ages.

In newspapers and television, in magazines, there are originals for sections on situations and case behavior, conduct contests, collection contests and case handling. In education and training work, Vietnamese education researchers also soon approached the construction and use of case theory in active teaching methods and achieved a number of definite achievements. The number of research works has increased greatly, diverse in form, content and application scope [1], [2], [3],[4], [6], [7], [8].

At present, the case teaching method is increasingly interested by researchers, educators around the world and has been developed into one of the modern teaching methods with high educational effectiveness.

The reality of teaching shows that the more practical, attractive and attractive the knowledge is, the easier it is for students to accept and remember. In order for solid scientific knowledge to become close to students, through solving real-life situations, students will have the opportunity to practice thinking, activate self-study and self-research capabilities, turning them from objects to subjects of cognitive and learning processes, step by step gain scientific knowledge, develop the ability to adapt to different situations in learning as well as in life.

Logic is the science of thinking and techniques to conduct thinking correctly, quickly, and accordingly can help to quickly and accurately detect errors in their own or others' thinking, thereby provide timely and effective feedback in different areas of life. In order for students to acquire that knowledge of logic, in the process of teaching, teachers need to know how to apply teaching methods to actively engage learners.

Therefore, the application of the case study method in teaching the chapter "Fundamental laws of formal logic" in Logic is highly practical and feasible.

In the article [8], the concepts of Situation, Teaching Situation, and Teaching Methodology have been mentioned by the author. In this article, the author will give the structure of the case study method and applies it in teaching chapter "Basic laws of formal logic" in Logic [9].

2. STRUCTURE OF CASE STUDY METHOD

Through research and investigation, the author found that the 6-step model structure of the case study method proposed by Kaiser is considered as the ideal structure for the process of implementing the case study method (Kaiser 1973) [6]. According to the author's point of view, this 6-step structure (Figure 1) is suitable for the process of implementing case study method in teaching the chapter "Basic laws of formal logic" in Logic.

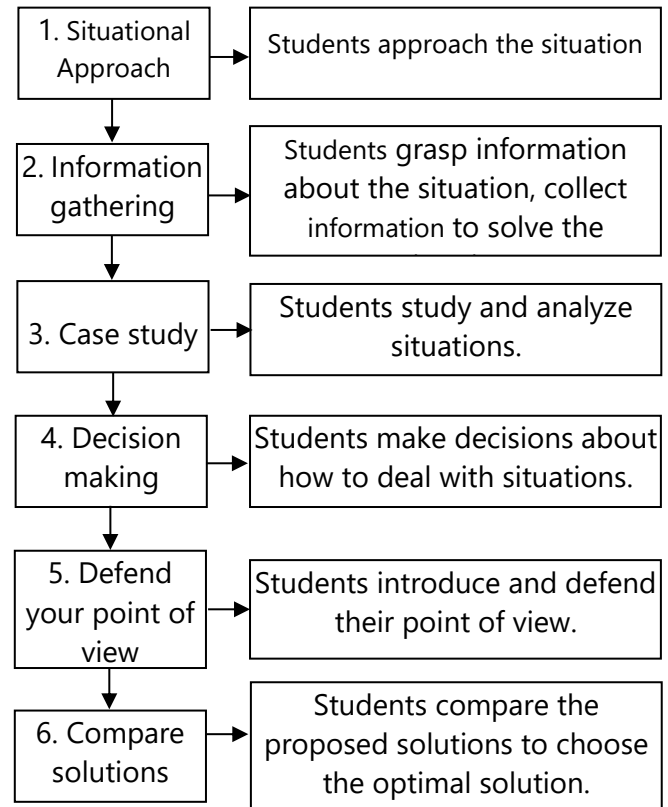


Figure 1: Structural diagram of case study method

3. APPLICATION OF CASE LEARNING METHODS IN TEACHING CHAPTER "BASIC RULES OF FORM LOGIC" IN LOGIC SUBJECT [9]

Logic subject includes the following basic contents: 1) Research objects and historical development of logic; 2) Basic laws of formal logic; 3) Concept; 4) Judgment; 5) Reasoning; 6) Prove and disprove.

However, with contents 1, 3, 4, 5, 6, the application of case study methods are just a few single situations intended to illustrate certain specific teaching contents. For the content 2) The basic laws of formal logic, which are the reflection in the human mind, the definite relationships between objects and phenomena of the objective world, are the laws governing the association of thought forms. In the thinking process, in order to reach the truth, it is necessary to follow the laws of logic. In fact, although not equipped with the knowledge of logic, in many cases, people can still think logically (right) and detect mistakes in thinking, because human thinking not just guided by logic. However, it should be seen that the logical thing is only something spontaneous and obtained, usually in cases where the

objects of thought are simple, everyday problems. In the fields of high knowledge content, difficult problems, requiring science, accuracy, and rigor, if you are not familiar with logic, you cannot easily do it. In the process of thinking, if the basic laws of formal logic are violated, people's thoughts lose accuracy, lose provability, and thus become ambiguous or contradictory.

Logic studies and provides "standards" based on which people think correctly, quickly and also easily detect mistakes in thinking and perception of others. Basically, "norm" is expressed in the laws of thought (including four laws: identification, prohibition of contradiction, exclusion of the third and sufficient reason) and in forms of thought (including three form: concept, judgment and inference). The standard that Logic offers is to be applied in many fields in everyday life, in the natural sciences as well as in the social sciences.

In the process of teaching the Logic subject, the case study method can be applied in teaching the chapter "Basic laws of formal logic" in Logic subject in two forms:

1. In the form of sample situations (mainly given by the teacher) interwoven in the lecture to illustrate each specific teaching content.
2. In the form of case discussions: In these discussions, all the time is focused on solving situations on the basis of applying learned knowledge.

When teaching the chapter "Basic laws of formal logic", the situations given can be allegories, fairy tales, stories in everyday life built by teachers themselves, for students to learn. The student self-analyzes and finds out the right and wrong in these situations compared to the logical standard presented and analyzed before.

4. ILLUSTRATION OF THE CASE STUDY METHOD FOR LESSON "LAW OF UNIFORMITY" IN CHAPTER "BASIC RULES OF FORM LOGIC" [9]

Applying the diagram of figure 1 to the lecture, corresponding to each content, the teacher will give the corresponding situation, students discuss and draw conclusions about the content of knowledge to be achieved.

First, the teacher states the content of the Law of Identity: "A must be A" or: "In the process of thinking every thought must be identical with itself". After analyzing the nature of this law, the teacher presents specific requirements that people must follow in order to avoid violating the law of uniformity.

4.1. Requirement 1st

This requirement is stated: There must be a correct concept of the objects that we are thinking about, that is, we must correctly shape into our thinking the essential signs of the objects that we are thinking about. reflection, thereby avoiding the confusion of objects, concepts of objects, and false identity.

In order for students to understand this requirement, the teacher gives the following two situations:

Situation 1: The story of Trang Quynh, when he saw the Lao envoy give Trinh Lord a tray of long-life peaches, he ran to get a fruit to eat immediately. God said that Trang Quynh committed a crime when the army, ordered to cut. Trang Quynh said: "It's fine to cut me, but you have to cut the dugong first. It said long life peaches, I just ate it and died! Then it must be a short life." God laughs and forgives sins.

Student analyzed the situation and came to a conclusion: In the above story, Trang deliberately violated the law of identity to escape death, by swapping the content of the concept of death as "criminal" with the content. death "according to the laws of biology". In logic this is called the fallacy.

Situation 2: By observing that thunder is always heard after a flash of lightning, it is concluded that lightning is the cause of thunder.

Student analyzed the situation and came to the conclusion: It is actually two manifestations of light and sound of the same natural phenomenon that discharge opposite charges between clouds, because light propagates at a high speed. Much faster than the speed of sound, we see lightning before we hear thunder. Due to awareness, or lack of knowledge about the object, it unintentionally reflects the wrong object. In logic this is called the fallacy.

Then the teacher guides students to map out the required content 1 (Figure 2):

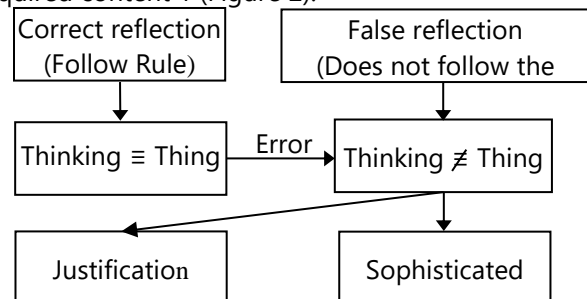


Figure 2: Diagram for the content of request 1

4.2. Requirement 2nd

This requirement is stated: Things, phenomena, thoughts... that are similar in nature are not considered different, on the contrary, things, phenomena, thoughts... are different in nature is not identical with each other, that is, after having correctly shaped into thinking concepts, understanding of certain objects is not for any reason, when things and phenomena They are identical in their essential signs, but we arbitrarily consider them different and vice versa.

The teacher gives the situation, from the story of the guy who borrowed the cauldron from the shop owner, when the shop owner asked for it, he brought 2 storks. The shop owner said, "You borrowed me the cauldron, why did you bring the stork to return it?". The guy immediately said, "I borrowed you a cauldron and I paid you two storks, you get a great deal." The shop owner was surprised, "But my cauldron is a copper cauldron". The guy immediately replied: "Then my stork is also a field stork."

Through the analysis of the story, students see that the basic requirement of the law of uniformity of formal logic is: when thinking and arguing about a certain object, it requires the concepts used in thinking about the object. Objects must be clear, precise and keep their consistency throughout the thinking process, especially, it is necessary to pay attention to homonyms with different meanings or synonyms with different sounds; If you don't agree with different ideas, if you don't fulfill those requirements, the situation "he said chicken, she said duck" would have violated this rule as the story mentioned above.

Complying with this requirement will ensure that thinking is not arbitrary, thinking activities are not dominated. This is an important factor in everyday thinking, even more important in scientific thinking.

Then the teacher guides the students to map out the required content 2 (Figure 3):

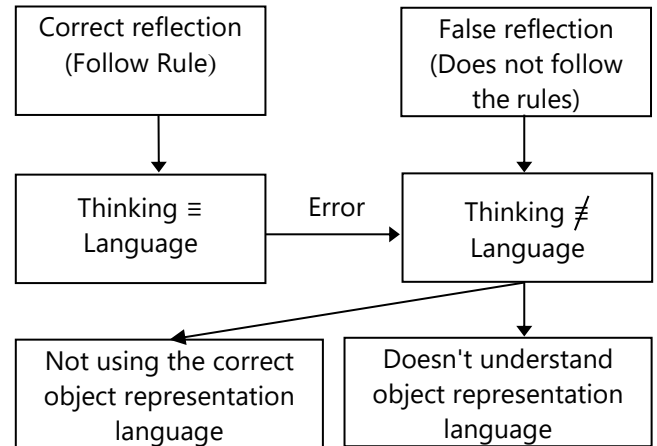


Figure 3: Diagram for the content of request 2

4.3. Requirement 3rd

This requirement is stated "Reinventive thinking must be identical with archetypal thinking". The objective basis of this requirement is the consistency of thinking in repeating one's own thoughts or correctly understanding the thoughts of others. In practical activities and cognitive activities, people often have to re-express or properly understand the ideas that have been shaped about the object. Formed thinking about the object is called archetypal thinking. And thinking that repeats or re-understands a previous thought is re-creative thinking. When we correctly repeat our intention or correctly understand the formed thought, then this requirement has been complied with. If the opposite is wrong thinking. When the requirements are violated, it will make the thinking inconsistent, possibly distorting the correct perceptions already about the object.

The teacher gives the following situation: Mr. K built a house without a building permit (ie not in accordance with the law). authorities asked him to stop construction. although he knew clearly that article 62 of the 1992 Constitution of our country stipulates: "Citizens have the right to build houses according to the planning and law", but he said: "You are state officials without a firm grasp of it. law. Article 62 of the 1992 Constitution of our country clearly states: Citizens have the right to build houses. I am a citizen. So the construction of my house is to exercise the civil rights recognized by the Constitution. Why don't you allow construction? If you don't let me build a house, you've committed a

constitutional violation. If I say the opposite, you lose your job. Don't mess with me!"

Violation of this requirement leads to what is commonly referred to in folklore as "The Three Stars Seven" and leads to the consequence that in the next steps, people will proceed to think (or act) on thoughts other than A (~A) rather than thought A as it was originally, and thus the results of these thoughts will be erroneous.

Then the teacher guides students to map out the required content 3 (Figure 4):

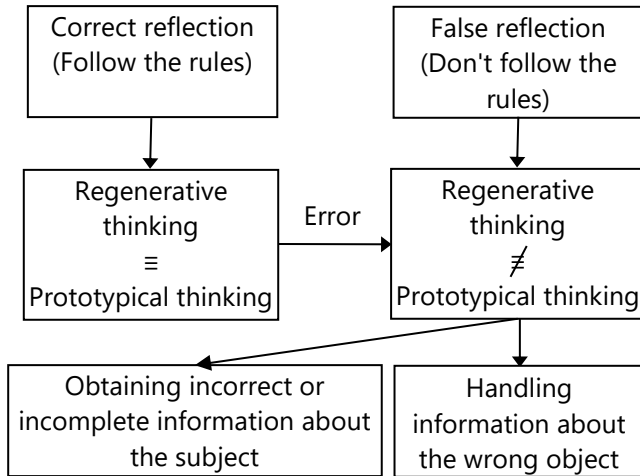


Figure 4: Diagram for the content of request 3

In short, each concept, each judgment needs to be used in a definite idea and must preserve its content and meaning in the whole reasoning process. Do not identify different thoughts and do not consider identical thoughts to be different.

5. CONCLUSION

Currently, there are many active teaching methods that are applied to maximize the positivity of students in the learning process, which contributes to the innovation of university teaching methods and also meets training requirements under the credit system for the university system. Teaching activities at the university level, in order to achieve quality and effectiveness, must constantly improve and supplement content and innovate methods. The application of case teaching methods in teaching Logic in general and teaching the chapter "Basic laws of formal logic" increases the students' active participation in the teaching and learning process and this is identified as one of the measures contributing significantly to improving the quality of subject teaching. With case teaching method,

students will have the ability to work in groups, work in groups, self-study, deduce, be more active in learning. It also aims to equip students with essential skills for the job process after graduation.

6. ACKNOWLEDGEMENT

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