Discussion on the Application Problems of Case Teaching Method

Yuan-yuan WANG

Kunming Fire-fighting Command School of public security fire forces, China

Corresponding author

Keywords: Case teaching method, Teacher, Student, Case.

Abstract. Case teaching method was introduced into the safety technology training, in which the real situation of the actual work was processed typically to form the cases for students to think and analyze. The case teaching focuses on the development of students' creativity and the ability to solve practical problems, and acquire knowledge through case in a more effective way. The ability of students to analyze and solve problems was improved by independent research and mutual discussion.

Introduction

Case, also known as individual case, instance or example, first appeared in medical field, and later was widely used in law, military, education, management and other disciplines. Case teaching method was first set up by Randall the dean of the Law School of Harvard University in the 1870s, whose book Contract Law was the world's first textbook of case teaching method.

Case teaching method refers to the teaching method that with a certain teaching purpose and under the guidance of teacher, the students select typical case, and conduct targeted analysis and discussion to make their own judgments and evaluations to improve their abilities to analyze and solve problems after comparison, evaluation, optimization the resulting different conclusions. Problems offered by the real case in case teaching can help students link what they learn with real life, arouse their intrinsic motivations, strengthen their learning behaviors of active participation, enhance their self-guidance learning skills and knowledge transfer, and assure their practices of what they learned.

Core of Case Teaching

Praise of case teaching method can be summarized as follows:

A comprehensive and problematic background created for the learning of professional knowledge is beneficial to the inter association between theory and practice, helping students understand abstract scientific proposition, the concept and the principles, and overcome the weakness of fragments and isolation in the original theory teaching, which can improve students’ abilities to analyze and solve problems globally.

In the discussion of the problem, it is beneficial for case teaching to play the subjective role of students, mobilize the enthusiasm of students, achieve the student-centered of teaching, and exercise the language skills of students majoring in engineering and technology, which contributes to the overall development of students.

These two points are the two core issues of case teaching method: the learning mechanism and the teaching purpose. Case teaching method stimulates the learner's interest of learning inquiry through the concrete story with rich of problems from daily life and professional world, thus achieves the communication of daily life and science. In essence, it is a kind of inductive learning based on problems.

Preparation stage. At this stage, the preparation work is mainly the arrangement of the teaching process. How to prepare for the teaching? What steps are included in it? The aspects usually relating to these works are as follows:

Selection of a case, analysis of case materials, a brief overview of what kind of material to form a case, and identification of the key problems in a cases.
On the other hand, assessment of whether a point of view has an advantage in class discussion, or whether it will be a real discussion. Teacher should reverse one-sided point and play the role with viewpoints against those of students. If a discussion on some important issues fails, it is necessary to motivate students from some materials in the case.

Introduction of case. From source, cases used in teacher training are two kinds: cases produced by teachers themselves and cases prepared by others. For the first kind, teachers can introduce feel, anecdotes of the writing case to arouse students’ attention. For the second kind, teachers can use the teaching media, such as audio and video materials to print in advance to attract students’ attention. Meanwhile, teacher should note the difficulty of the case and the position of the case in the whole course, and the goal the case needs to reach to the students, as well as how to carry on the following discussion, the general requirements, and how much time should be spent and so on.

Analysis of case. Within the stipulated time, students are required to read case materials and discuss in groups. Students are encouraged to broaden thinking, actively speak, ask each other questions, judge the core topics, arguments of the case and problems to be solved, and make decisions. Generally, questions discussed in a typical case are as follows: What is the difficult problem in the case? What information is essential? What is the solution to the problem? What are the criteria for making a decision? What kind of decision-making is the most appropriate? What kind of implementation plan should be made? When will the plan be put into action and how to put it into action? How to make an overall evaluation?

Since the solution to the difficult problems or making specific decisions usually occupies the core position in many case discussions, the case discussion can be divided into four different stages. Beginning a case discussion means that the teacher should ask the students question and give students some time to think. Generally, there are two kinds of questions to be asked: guiding questions and non-guiding questions. Typical guiding question is as follows: "In your mind, what the teacher (or others) will do on the next step in the case?”, while typical non-guiding question "What do you want to say in this case?” or "It is your case now, you first talk about your own views on this case.”

Identification of problems in a case is often placed in the preliminary discussion, and students generally spend a certain period of time on the identification of the characteristics of the problems in the case or making a decision. If there is no necessary analysis of the thesis in the case, the following alternative choices and the fact for the solution of problems in the case will be meaningless. The time spent at this stage differs from teachers’ objectives of teaching. More difficult the problem is, more is the time spent on it. The time is correspondingly less for those easy case without any careful analysis. In most case teaching, there is an important part of alternatives discussion. Sometimes, even before the identification of problems, alternative plan or method to solve the problem has been proposed by students. Generally speaking, in a case discussion, there are at least two different alternative solutions to the problem, and sometimes more than 10 solutions. The greater the number of alternative plans or methods is, the greater is the need to cut some of the inappropriate solutions before serious discussion of the advantages of the most important or most appropriate scheme.

There are at least two approaches to reduce the number of the alternative plans: One is to require students to analyze the difference of these schemes, that is, to judge which one or several more schemes will be more easily implemented when these different schemes are applied to specific circumstances. For the second approach, teachers can encourage students to analyze which program is less likely successful. Sometimes, some scheme sounds very beautiful as a good idea, but it may not be realistic, so the possibility of success is the little. This approach will eliminate some of the programs or methods. After a lot of thinking and consideration, the optional program left may only be 2 to 3. At this time, teachers and students can discuss the program one by one through writing the advantages and disadvantages of each program on the blackboard and finally determine the best solution on this basis of a comparative analysis.

Summary stage. Just like the beginning stage of teaching, this stage is also a transitional stage, which comes to a certain conclusion from the case discussion for the following classroom teaching.
At this stage, both students and teachers can make a summary, explaining the key points of the case and the advantages and disadvantages of the case discussion. Of course, students can think independently after class without any summary or comment. At summary stage, it is often required to reveal the theory contained in the case, strengthen the content of the previous discussion, prompt the subsequent case and inspire the participants. Many teachers engaged in case teaching think that it is not appropriate to make no conclusion and finish the teaching when coming to the end of the case discussion. At this time, teachers can help students have a further awareness and understanding of the case to enhance their learning experiences.

**Characteristics of Case**

Specification of case. Since case teaching has certain pertinence in the process of teaching, it is necessary to consider the time, the background and the condition of the case applied. Case teaching enhances the feasibility and the purpose of teaching, pays attention to the students’ development of the creative ability and practical ability to solve the problem, and it is about how to get knowledge more effectively. Case teaching enhances the pertinence and effectiveness of teaching, teaches and guides students to deal with many difficult problems, helping students get cognitive knowledge and improve their expression and discussion skills.

Authenticity of case. In the use of case teaching, teachers must clearly recognize that the case should reflect the true event, which is the characteristic of objectivity. Lons said that a good case is a tool that introduces part of the real life into the classroom for teachers and students of the whole class to analyze and learn. A good case can make the classroom discussion conducted around the problems in real life. A case is a record and description of a complex situation, which must be analyzed and restored originally in order to make people understand it better.

Particularity of case. In case teaching, case has characteristics of particularity, certainty of object, predictability of process, flexibility of method and bright conclusion. With presentation of the case characteristics, case teaching pays attention to the descriptions of the process, details, conflict and scene of the case development process. Case teaching has greatly shortened the gap between teaching and life situations. As a bridge between the real world and the world of learning, case undoubtedly makes the learners adapt to the challenges of the working scene faster.

Interaction of case. During case teaching, since teachers and students participate and invest more, they are to take more responsibility for teaching and learning. As a teacher, he should choose cases applied to teaching around the teaching objectives, and mobilize the enthusiasm of students to participate in teaching through the heuristic teaching. As a student, he can not stay out, has to change the passive acceptance of the practice to active participation in teaching activities and carry on serious analysis and discussion of the case to draw conclusions. Only through the active participation of teachers and students can the role of the case teaching method be played better and the desired teaching effect be achieved.

**Application Scope of Case Teaching Method**

In order to make students understand some basic concepts, grasp some theories, and form insights on some issues, case teaching method is undoubtedly a more appropriate choice. The case teaching method has a basic hypothesis, that is, students can learn through the research and discovery of these processes, and recall and apply the knowledge and skills when necessary. Case teaching method is very suitable for the development of analysis, synthesis and evaluation ability, and other comprehensive skills. These skills are usually required for the electrical and electronics professionals. To make case teaching more effective, the learning environment must be able to provide the learner with the opportunity to prepare and discuss the results of case analysis. Students must be arranged to face to face discussions or to communicate via electronic communication facilities. However, learners must be willing and able to analyze the case, then communicate and stick to their opinions. The reason for this is that the student's participation has a very important influence on the effectiveness of the case analysis.
Disadvantages of Case Teaching

One disadvantage is that not all teachers are suitable for case teaching. It takes time to write a good case. Furthermore, to write a case reflecting real life requires teacher to have excellent teaching skills and rich teaching experience.

The other disadvantage is the high requirement for students. In addition, case teaching usually exceeds the limit of class hours. The extra teaching time is often more than 2 class hours, which is inconvenient to finish teaching on time.

References


