On the Teaching of Rural Environmental Management Cases

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ABSTRACT. The case teaching method is an effective teaching method that is enlightening and practical, and can improve students' decision-making ability and comprehensive quality, while the characteristics of environmental management are reflected in the marginal, comprehensive, and practical, the combination of which has strong adaptability. This paper discusses how to effectively implement the case teaching method in the undergraduate teaching of environmental management accompanying with a specific practice.

KEYWORDS: Case teaching method; Environmental management; Teaching organization and control

1. Introduction

Case teaching refers to all kinds of teaching methods based on the so-called case centered story. The teaching cases here are created to stimulate students' enthusiasm for learning, which covers a wide range of scientific themes and ideas. If only for application purpose, the characteristics of case teaching method is to use a real-life situation as a catalyst and framework for classroom discussion, so as to find practical methods to solve problems or the practical application of a theoretical principle. So, what is a case? A case is an objective record or a specific description of a typical event. Case teaching is a kind of teaching method to improve students' theoretical level and practical ability by using appropriate case materials, analyzing, researching and discussing specific case contents and situations, putting forward problems and various possible decision-making schemes, in order to achieve specific teaching objectives. After the case teaching method was introduced into our country in the 1980s, people pay more and more attention to it. Especially in recent years, with the constant renewal of educational concepts, inquiry learning, inquiry learning, etc. It has become the new learning methods advocated today. Case teaching is more and more applicable to the teaching of science.

In the teaching practice, the course of "environmental management" mostly uses the traditional teaching mode to teach students. The traditional teaching mode pays attention to the explanation of theoretical knowledge and imparts knowledge through deductive reasoning. Its logical starting point is to elaborate on the concept structure and theory formally, and then discuss with examples and problems. However, according to the author's experience, when the traditional teaching model is applied to the teaching of environmental management, its effect is not very ideal. The outstanding performance is that students generally lack interest and enthusiasm in the course, and the main reason is that the traditional teaching model cannot adapt to the practical characteristics of "environmental management". "Environmental management" integrating discipline and work field, is based on the practice of environmental management, through the refinement and summary of the theory and practice of human-environmental management. It can be obtained that the value of "environmental management" lies in its practicality and applicability. However, the objects of our undergraduate teaching have not experienced the training and accumulation of work practice at all. When we accept the courses with higher practical requirements such as "environmental management", we generally have a feeling of "seeing flowers in the fog". Therefore, in environmental education, case teaching shows its unique advantages.

Although some environmental educators have realized the importance of case teaching, and there are also case teaching attempts, but generally speaking, it is still in its infancy. To explore the theoretical basis of case teaching in environmental education is of practical significance for clarifying the paradigm of case teaching and promoting the smooth progress of environmental education. The introduction of case teaching mode into "environmental management" is not only an inevitable trend to adapt to the transformation of educational concept, but also an objective requirement of the characteristics of environmental management[1].

2. Implementation Procedure of Environmental Management Case Teaching

2.1 Teaching Methods and Requirements of Environmental Management Case Teaching

First of all, it focuses on the discussion of practical problems and cases of environmental management, through which we can learn from each other, inspire each other, stimulate intelligence, learn from each other, guide the thinking of finding, analyzing and solving problems, expand the knowledge, and flexibly use knowledge to improve together. Secondly, it is supplemented by knowledge teaching, which focuses on inspiration and guidance. Third, please come in and go out. "Officers teach soldiers, soldiers teach officers, soldiers teach soldiers, teaching and learning each other." The fourth requires preparation before class (preview, thinking on key issues, completion of homework, etc.); active participation in class, through intellectual stimulation, teaching and learning, common improvement; summary after class (thinking induction, completion of homework). Fifthly, the innovative ideas and original opinions, profound analysis and summary, and enlightening experience are encouraged by scores[2].

2.2 Case Teaching Organization and Process Control

(1) Voluntary Grouping

In the first class of the course, let students form their own teams in a voluntary way, and each team undertakes one case. At the same time, each team should select a team leader who is responsible for the coordination and operation of the whole team[3].

(2) Content of Teachers' Work

Collection and compilation of teaching cases: cases should be collected and sorted out by teachers in advance. In the long run, a set of cases suitable for the teaching requirements of "environmental management" should be independently developed; necessary intellectual support should be provided to the casework team; teaching time should be reasonably allocated[4].

(3) Group Work Content

Provide a copy of the case to the whole class in advance; complete the analysis and discussion of the case by group work, make a PowerPoint document, and go to the stage to make a limited time statement and comment on the case (about 20 minutes). Besides the basic content of the case itself, the statement points also require the group to supplement and enrich the additional background materials; design the topic and host the discussion by the students. The moderator assigned by the group is responsible for class control and conclusion summary; the group arranges a special person to be responsible for the record and arrangement of case discussion, and submit the final case analysis report after class discussion. The whole case discussed above is suitable for about 50 minutes. In the process, "brainstorming" and "divergent thinking" is encouraged. It is emphasized that there is no standard answer in case analysis, only the application and association of knowledge. Anyone and any time can ask and discuss the questions they find or are interested in[5].

(4) Structure and Requirements of Case Analysis Report

The case statements and comments made by this group; record the comments of other students; synthesize the final conclusions of the discussion between this group and the class; collect additional background materials. The report is not limited in length and encourages brevity as the main basis for teachers to evaluate the results of cases[6].

(5) Assessment

As an important part of curriculum performance, it is necessary to set the evaluation standard of case performance in advance and publicize it to students. Generally speaking, the evaluation criteria should be published and explained in advance. The commonly used indicators are innovation, application of knowledge; participation, practical ability; team spirit; their own comprehensive quality, such as expression ability, organization ability, coordination ability, etc. Sixth, the results of case teaching. As a result of the concerted efforts of all students, students can be

organized to edit the casework completed by the whole class, together with the teaching courseware, classic literature, "environmental management" e-books and other related auxiliary materials of the teacher into a "environmental management" database, which will be recorded on CD and distributed to each student as a resource reserve for future study and work[7].

3. Problems in Case Teaching of Environmental Management

In case teaching practice, the most time-consuming and difficult task is to develop and collect teaching cases with high application value. The lack of high-quality teaching case resources has become the bottleneck of environmental management case teaching. As we all know, writing a case is different from writing a novel. A case is a description of a real situation. Writing a case is actually a re creation process. By re describing the situation at that time, it makes teachers more deeply realize the key points and difficulties in their work, closely combine theoretical learning with teaching practice, and reflect on their teaching behavior. By reflecting on their own classroom behavior, teaching strategies, educational ideas, teachers' emotions and other educational and teaching issues, refining and clarifying effective educational behavior and its theoretical basis, improving the level of specialization of teaching work, so as to create a more scientific and effective method. Sometimes, in order to emphasize the conflict in the educational background at that time, it inevitably has a narrative way similar to the novel. However, an important feature of a case is its authenticity. Obviously, it is a long-term and arduous work to develop a set of environmental management case teaching resource base, which is in line with the actual situation of China, and it needs the joint efforts of the majority of environmental educators.

As a completely different teaching method from the traditional one, the case teaching method plays a very positive role in the effectiveness of personnel training. However, the effectiveness of case teaching is based on certain assumptions. It is obviously not a scientific attitude to blindly superstitious and comprehensive application. Whether to adopt case teaching? It should serve and obey the realization of the overall teaching goal of "environmental management". In the teaching practice, I often think about such a problem: in the teaching process, the knowledge I get from the students, the harvest and happiness I get in the ideological exchange with the students seem to be more than the students get, but I get maybe not a huge salary, while the students have to pay a high tuition. Perhaps the answer to this question should be the driving force for every educator to forge ahead[8].

4. Conclusion

Case teaching is a valuable teaching method in the course of environmental management, which should be used in combination with the teaching of theoretical knowledge. At present, the problem is that high-quality teaching cases are very scarce, and there are not many references, which seriously affect the development of case teaching. Teaching practice shows that excellent cases can stimulate students'

initiative in learning, make them not only have fun in learning, but also strengthen the team spirit, improve their expression and organization ability, and lay a foundation for them to go to work in the future.

References

- [1] Wang Ningxin (2019). Teaching reform of environmental planning and management. Journal of Anhui University of Technology (SOCIAL SCIENCE EDITION), vol.36, no.2, pp.76-77, 81.
- [2] Li Jia (2018). The application of Hybrid Teaching Mode in the course of environmental planning and management. Education modernization, vol.5, no.52, pp.161-162.
- [3] Guo Ping, Cao Binxia, Zhang Li (2018). Practical teaching reform of environmental planning and management. Guangdong chemical industry, vol.45, no.14, pp.218, 233.
- [4] Xie Shan, Ouyangke (2018). Summary of teaching reform of environmental planning and management. Guangdong chemical industry, vol.45, no.9, pp.244.
- [5] Zhang Hao (2019). Cultivation of ecological design ideas in the teaching of principles of landscape architecture design. Modern horticulture, vol.42, no.17, pp.160-162.
- [6] Zhang Hui (2019). Construction and practice of classroom teaching mode of applied courses for Tourism Management Specialty Based on steam concept. Social Sciences, vol.34, no.8, pp.132-135.
- [7] Si Linbo, Nie Xiaoyun, Wu Zhenqi (2019). Construction of target management mechanism of cross administrative region ecological environment coordinated management. Journal of Chang'an University (SOCIAL SCIENCE EDITION), vol.21, no.4, pp.40-50.
- [8] Lin Kunqin (2019). Environmental protection management measures for chemical enterprises in coastal areas. Chemical design communication, vol.45, no.9, pp.227-228.