

A Study on the Application of the Heuristic Methods in Accounting Teaching

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Abstract—This paper tries to systematically analyze the problems faced with the present situation of accounting teaching, then makes a probe into the nature of the heuristic education and concrete heuristic methods. The methods used in this paper mainly include the literature analysis and comparison study. Apparently, the heuristic education and heuristic methods are of great importance to the college accounting teaching and the cultivation of accounting professionals in reality. It's commonly believed that accounting is a special subject with its unique theories and comparatively strong practicalness in real life for students. During the course of accounting teaching, different effective heuristic methods of teaching should be combined in use and some other methods remain to be further explored.

Keywords—the heuristic methods; accounting teaching; the source-tracing method; the comparison method; the case study

I. INTRODUCTION TO THE STATUS QUO OF ACCOUNTING TEACHING

As many people have long believed, accounting as a academic subject is mainly borrowed from the western. On the one hand, higher and higher requirements have been placed on the science and occupation of accounting in the society; on the other hand, the rapid development of our society, especially the emerging science and technology has been greatly changing accounting. Under such a background, the problems of accounting teaching stand out in our country. Briefly, the problems are as follows: firstly, new paradoxes arise in the new era, like the conflicts between the supply and demand of accounting talents, between teachers and students; [1] secondly, informatization has made the traditional teaching ideas, teaching means even the teaching content outdated, [2] especially the rapid technologies of the big data, intelligentization, mobile internet and cloud computing; [3] thirdly, the development of accounting laws and regulations forces the teachers to update the content of accounting teaching, like the issue of the new accounting criterion and so on. [4]

II. THE CONNOTATION OF HEURISTIC EDUCATION

The famous educationist of former Soviet Union Sukhomlinskii once said, the desire for knowledge and curiosity are the permanent and unchangeable qualities of human beings, so where there are no desire for knowledge, where there are no schools. In this sense, the good teaching methods should endow the students with the vitality of education, interest and pleasure of study and academic research, which is the very nature of heuristic education or heuristic methods of teaching. The so-called heuristic methods of teaching refers to any approach to problem solving, learning, or discovery that employs a practical method, not guaranteed to be optimal, perfect, logical, or rational, but instead sufficient for reaching an immediate goal. Where finding an optimal solution is impossible or impractical, heuristic methods can be used to speed up the process of finding a satisfactory solution. Heuristics can be mental shortcuts that ease the cognitive load of making a decision. Examples that employ heuristics include using a rule of thumb, an educated guess, an intuitive judgment, a guesstimate, stereotyping, profiling, or common sense, etc. [5] In teaching, heuristic methods should be in accordance with the objective rules of teaching objectives of the teachers and learning process of the students, the teachers should try hard to encourage the students to learn by employing all kinds of teaching means to so that the students' interest and courage in learning will be spurred and in turn they will take the initiative in learning. Through heuristic methods of teaching, the students' initiative and habits of learning will be greatly improved. [6] The key to heuristic methods of teaching is to stimulate the learning interests of the students, enhance their learning habits and initiative, which is quite different from the traditional cramming way of teaching. The course of accounting is a course with comparatively strong theoretical and practical properties, with the teaching aim of cultivating the students' basic knowledge, basic skills and operational capability that the students are required to maneuver when they go for work in the future. That's why in the teaching

practice, the teachers have to pay more attention to the cultivation of students' occupational literacy so that they will be more competent for the future jobs. The following are the concrete heuristic methods that are commonly used in our teaching practice.

III. THE COMMONLY EMPLOYED HEURISTIC METHODS IN ACCOUNTING TEACHING

A. *The Source-tracing Method*

For the students majoring in Accounting or Financing, the course of accounting is a professional basic course, which involves a sequence of terms, such as accounting hypothesis, accounting elements, accounting item, accounting entry and accounting account. For the beginners, these terms are totally new even strange, so it's no wonder that they will feel at loss at the very beginning. For some other terms like debit-credit bookkeeping, though fundamental, they are more obscure for the students for they are borrowed from abroad. Therefore, in practical teaching, to make them better understood, the teachers have to briefly introduce the very origin. We need to tell the students the fact that the debit-credit bookkeeping is originated from Italy, which was later spread to other European countries and America, then widely accepted as a method of keeping accounts. It was later introduced to Japan, what we are using today is actually learning from the Japanese for the Japanese language has remained the two Chinese characters Jie and Dai. Even so, in traditional Chinese culture, Jie and Dai mean the same, which are so different from some other accounting symbols like Zeng (add) and Jian(subtract), Shou(collect) and Fu(pay). Thus, we often have to trace back to the source of this pair of terms. The students should be informed that they are from debito(debit in English) and credito (credit in English) in Italian, later developed into debit and credit into English. If the students know the stories behind, they will connect their understanding with some other knowledge in their minds and their interests in learning this course will be greatly boosted. Interest plays an essentially important role in the teaching of professional knowledge like accounting and auditing. [7] So, the source-tracing method is enlightening to the students. For the problems faced with the present situation of college teaching of accounting in our country, the teaching notion, means and content ect. should be innovated, and both the teachers and students should foster the awareness of a research-based teaching and learning. [8]

B. *The Comparison Method*

Some professional knowledge will be more effectively taught to the students if a comparison can be made between something unfamiliar and something familiar to them. Take the methods of depreciation of fixed assets for example. In daily life, we often don't think about really how the fixed assets are depreciated. So how to get the students understand the professional knowledge is really not an easy thing. In the teaching practice, we often explain this through living examples. Based on the contrast of the strength and weakness, then we start to introduce another method of depreciation. At first, we will tell the students the strength of the composite life method (or the straight line method) is convenient,

understandable, and directly reflects the impact of invisible depreciation. But the weakness of this method is equally apparent. For focusing on the element of time and overlooking the use intensity, this method fails to fully display the impact of invisible depreciation, then causing the inability of reflecting the transfer of the value of the fixed assets. By contrast, the units-of-production depreciation method just compensates for weakness of the former. Due to the combination of the amount of depreciation and the use intensity of the fixed assets, the latter better shows the effect of the tangible loss on the depreciation of the fixed assets. As mentioned above, the two methods both focus on the depreciation of equal sharing, with the difference lying only in the depreciation bases. However, the accelerated method of depreciation is obviously different from these two, which apportions according to the principle of more withdrawal at early stage and less withdrawal at late stage. At present, China tends to use the double-declining-balance method and the sum-of-the-years-digits method. Compared with the above-mentioned straight line method, the strength of the accelerated method of depreciation stands out for it takes into consideration the matching revenues and expenses as well as invisible depreciation so that it helps to reduce the tax burden of enterprises in the first years. On this basis, the students will be better aware the effect of different depreciation methods on the cost, expenditure and the economic benefit of companies or even on the fiscal revenue of the country as a whole. It can be obviously seen that the comparison method enables the students to improve their ability of analyzing and making judgments together with their comprehensive quality.

C. *The Case Study*

One of the purposes of accounting teaching is to prepare the students for the future occupations. Therefore, it's quite necessary to use some appropriate cases in teaching so that the students can better relate the theoretical knowledge to the reality. For example, in the teaching of monetary capital, the students will feel uninterested and confused if the teachers plainly tell them the management and control of monetary capital. The case study makes a difference. Take Mr. Zhang and his company for example. Mr. Zhang is the financial officer of a small county-owned cotton company with a yearly profit of 5million RMB, and Zhang has embezzled 10million RMB within four years consecutively. How did he do this? As the financial officer and cashier of the company, Zhang habitually took the money by cheques for transfer. Zhang once remitted 1.5 million RMB via cheques for transfer. As he confessed later, if the company has a strict set of remittance approval system, the money cannot be remitted, for it has neither contracts nor proof of physical good and supply of the buyer. If the company has a regular check system between the cash in bank journal and the bank statement, Zhang couldn't take even a thousand RMB not to speak of so much. Through the case study, the students will better think about the problems faced with the internal management of monetary capital and solutions to such problems. This case study will also teach the students some money-related principles in an organization, such as separate management of money and accounts and the management system of bank deposits. The reality-based method of case study will not only make the

students more familiar with the theoretical knowledge of accounting but also further spurs their interests in the learning of accounting.

D. The Situational Method

In the teaching of accounting, a lot of difficulties can be addressed by creating simulated situations in the class. When it comes to the six elements of accounting, the teachers can prepare some cash beforehand, then invite in the class some students to the stage. The teachers consider all the individuals on the stage as bookstore owners. Then raise questions like how the capital and profit come into being. The students will finally better understand the basic concepts of capital, owner's equity, liabilities and profits etc. The situational method can make the students both better understand the knowledge they have to master and improve their ability of analyzing and solving problems in reality.

E. The Graphic Method

The graphic method is characterized by vividness and clarity. Compared with words, this method will more effectively arouse the students' attentions and interests. For example, when it comes to the examples of accounting entries, the T-account can be introduced to explain how a business transaction happens, the involved accounts and the direction of debit and credit even how to deal with a complicated financial accounting like the accounting of bad debt loss. This method is applicable in some other situations like the teaching of accounting documents, accounting books and accounting statements.

IV. CONCLUSION

Anyhow, the heuristic methods are not easy to be mastered. There are many things particular lie ahead for the teachers. First of all, the teachers should be well aware of all the content to be taught and well design all every detail of teaching, preparing sufficient teaching materials for the students to choose. This is the first step to use the heuristic methods. Secondly, the teachers should guide the students in proper ways. "Proper" here means the teachers should take into account all the information about the students, like their learning proficiency and framework of knowledge at present,

and the detailed methods and means they may be probably interested in the class. Finally, the heuristic methods applied should range from familiar to unfamiliar, from basic to profound, and from simple to complicated. That's to say, the teachers should not only well know about themselves but their students. And how successfully the teachers employ the heuristic methods depend to a large extent on how often they use them in practical teaching and how often they rethink about the effectiveness of the varied methods.

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