Research on the reform of thinking mapping in university financial accounting practice

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Abstract. As a simple and effective thinking tool most common in modern education, mind mapping can be used to visually present the relationship between themes at all levels in a way that combines pictures and images. It can fully mobilize students’ ability of thinking expression and imagination and innovation. Therefore, modern college education reform will integrate the use of this technical means. According to the accumulated experience of financial accounting practical thinking guidance education in colleges and universities in recent years, although teachers and students have realized the practical significance of mind mapping teaching, they have not given full play to its positive role in classroom teaching and have not guided students to master financial accounting knowledge by scientific use of mind mapping. Therefore, on the basis of understanding the current situation of financial accounting practice teaching in colleges and universities and the advantages of mind-mapping application, this paper mainly discusses the effective measures for the reform of financial accounting practice mind-mapping education in colleges and universities in the new era, and then from the perspective of practical education, judges and analyzes the reform value of mind-mapping teaching, in order to provide reference for cultivating outstanding financial accounting talents.

Keywords: Colleges and universities; Financial accounting; Mind mapping; Curriculum teaching; Teaching reform.

1. Introducion

In essence, mind map is more effective than traditional linear recording method, because it pays much attention to the logical relationship and hierarchical relationship between keywords, and will use rich upper and lower graphic connections to reflect the cumbersome conceptual logic in the course. Very similar to the natural way of thinking of the brain, mind mapping is in line with the human brain nerve and multi-sensory learning interaction mode, so it is very suitable to establish a sound knowledge system and fully stimulate students' creative thinking. Nowadays, there are many common mind mapping software, such as Mindmanager, XMind, online ProcessOn and so on. From a narrow perspective, Process refers to the Process, while from a broad perspective, process represents the process. This technique brings all the text together into one image to really achieve the desired presentation. on is the abbreviation of online, which means that this platform is completed based on online platform. It can realize the basic functions of real-time sharing and multi-person collaboration, and has the advantages of inserting themes at will, supporting cross-main link, free layout, etc., so it is very suitable for the current demand of financial accounting practice education reform in colleges and universities with Internet technology as the core.[1-3]

The concept of mind mapping was created by Donny Bozan, also known as mind mapping. It is a technical means of using graphics to express radioactive thinking, which can fully mobilize learners' thinking expression and thinking reorganization, and finally visually present the thinking process. Financial accounting courses in colleges and universities contain more theoretical knowledge, and all knowledge points have strong correlation. Therefore, when cultivating talents in the new era, traditional teaching methods can no longer meet the needs of students. Teachers can use mind mapping to help students establish a sound knowledge system and accurately judge the correlation between different knowledge points. Fully mobilize the enthusiasm and autonomy of students' learning and thinking, and gradually improve the efficiency and quality of classroom teaching. At the same time, in order to further reduce the learning difficulty of financial accounting,
mind maps are introduced in the learning of relevant knowledge points to help students establish a perfect knowledge structure and further complete the expected teaching tasks.[4-6]

According to the accumulated experience of financial accounting teaching in colleges and universities in recent years, the education reform of mind mapping is mainly reflected in three aspects: First, in the pre-class preview, students can intuitively express the course content or relevant knowledge points through mind mapping, and have a comprehensive understanding of the knowledge learned in this class and the direction of inquiry; Secondly, during classroom teaching, students can draw a complete mind map to supplement and expand the professional knowledge explained by teachers, which can not only enrich students' understanding of the teaching content, but also reduce the workload of taking notes in class and improve the efficiency of knowledge learning. Finally, in the review stage after class, students can draw mind maps to sort out the knowledge points of this unit or subject, and draw a complete knowledge system according to the correlation between the knowledge points, so as to have a deeper understanding of financial accounting in the consolidation of memory. From the perspective of overall application, mind mapping teaching has the following advantages: first, it can deepen students' learning and memory, quickly understand the complex knowledge of financial accounting in colleges and universities, use pictures instead of boring words, and enable students to summarize the sequence, key content, logical relationship and innovation area of financial accounting knowledge during the drawing process, so as to realize effective learning from point to point. Secondly, it can guide students to establish a complete knowledge system, so that they can have a deeper understanding of financial accounting practice while effectively connecting new knowledge and old knowledge, and provide effective basis for the following education work. Finally, it can improve students' innovation ability, improve the traditional monotonous and boring education mode, intuitively present students' learning status in the classroom, facilitate teachers to scientifically adjust the existing teaching plan, and achieve the expected educational reform goals. Therefore, on the basis of understanding the current situation of financial accounting practice education in colleges and universities, according to the application characteristics and unique advantages of mind mapping, this paper mainly explores the main countermeasures for the reform of financial accounting practice mind mapping teaching in colleges and universities in the new era, and verifies the application value of mind mapping teaching combined with practical cases.

2. Methods

2.1 Teaching methods

Since mind mapping does not have spatial constraints, the application of mind mapping in financial accounting teaching in colleges and universities to understand subject knowledge can, on the one hand, fully mobilize students' ability of logical thinking and independent thinking, and comprehensively cultivate students' awareness of effective generalization and summary. On the other hand, it can provide students with new ideas for learning and exploring. It is convenient for them to use what they have learned to establish a sound knowledge system. Therefore, the common means of financial accounting practice mind-mapping teaching in colleges and universities can be divided into the following:[8-11]

First, the method of questioning. This method means that teachers take the lead and connect the knowledge learned in this class or unit by asking questions. Due to the differences in students' understanding ability, the answers they put forward and the expected goals set by teachers are likely to be different, which requires teachers to encourage and support students' self-expression, and at the same time, provide effective guidance according to the content they put forward, and finally summarize and analyze the ideas put forward by students, and complete the drawing and research of the mind map.

Second, evaluation method. This approach enables positive interaction between teachers and students. On the one hand, teachers have to reflect on their teaching behavior, and on the other hand,
students have to summarize their learning gains. Teaching evaluation proposed based on mind map can be divided into three forms. First, it refers to self-evaluation by teachers, second, mutual evaluation by teachers and students, and finally, it refers to self-evaluation by students. Compared with traditional teaching classrooms, this evaluation mode has more application advantages, which are specifically reflected in the contents shown in Table 1 below:

Table 1 Comparison results of mind mapping classroom evaluation

<table>
<thead>
<tr>
<th>evaluation methodology</th>
<th>Traditional teaching classroom</th>
<th>Reading Classroom Based on Mind Map</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-evaluation of teachers</td>
<td>Combine the teaching effect and teaching progress to make a single reflection summary.</td>
<td>Pay attention to the continuous improvement of teaching design and realize teaching reflection in circular mode</td>
</tr>
<tr>
<td>Teacher-student mutual evaluation</td>
<td>without</td>
<td>In the process of mind mapping, teachers and students carry out thinking activities and exchange ideas.</td>
</tr>
<tr>
<td>Self-evaluation of students</td>
<td>Make a simple summary based on the learning content.</td>
<td>Constantly refining knowledge points, Repeatedly improve key elements, Form a virtuous circle of learning Summarize.</td>
</tr>
</tbody>
</table>

2.2 Key Points of Practice

The teaching process of financial accounting practice mind mapping in colleges and universities refers to the process of students learning knowledge and skills step by step. When drawing the mind map, teachers should think according to different stages of students' thinking development, as shown in Table 2 below:[12-15]

Table 2 Feature analysis of mind mapping

<table>
<thead>
<tr>
<th>Development period</th>
<th>Thinking characteristics</th>
<th>Characteristics of mind mapping</th>
</tr>
</thead>
<tbody>
<tr>
<td>initial stage</td>
<td>Simplification, simplification</td>
<td>linear</td>
</tr>
<tr>
<td>period of expansion</td>
<td>Divergence, agglomeration</td>
<td>network</td>
</tr>
<tr>
<td>mature period</td>
<td>Self-reflection and continuous improvement</td>
<td>Composite network</td>
</tr>
</tbody>
</table>

After mastering the drawing characteristics as shown in the above table, teachers can skillfully use different types of mind maps, which are reflected in the following points: First, bubble map. This mode is mainly used to describe the topic and enable students to think deeply about a certain topic. Therefore, it is often used in the summary research of financial accounting practice in colleges and universities to facilitate students to master the teaching content of a unit. Second, flow chart. This mode is to visually present the thinking process and research progress, and the information and steps in the process can be specifically marked and identified. Again, support diagram. This pattern is mainly used to show the relationship between the parts and the overall theme. It is important to note that this model only considers real objects or situations, and does not include abstract thoughts and concepts; And finally, the tree diagram. This mode will organize data
information, so that people can classify and process according to the connection between objects and main categories, and help students to sort and summarize the information they have mastered.

2.3 Specific Applications

Taking cash on hand inventory and financial treatment of inventory inventory as an example, in the design of mind map education program, it is necessary to first clarify the basic intention of the overall instructional design, comprehensively master the knowledge points related to cash on hand inventory and financial treatment of inventory inventory. Based on mind map, the two separated knowledge points are connected in series for comparative teaching. The overall teaching design is reflected in the following points: First, practical cases should be introduced into the classroom to fully stimulate students' interest in learning. Taking the cash inventory and inventory inventory of an enterprise as an example, after presenting relevant data information with multimedia technology, students are asked to think and explore according to the questions put forward by teachers. Secondly, the students in the class were divided into several groups and given teaching guidance according to the expected teaching tasks. Students were required to draw a mind map of the financial processing process of cash inventory surplus and inventory inventory surplus according to the above financial processing. The specific content is shown in Figure 1 below:

![Figure 1 Teaching mind map](image)

Based on the analysis of the figure above, it can be seen that the mind maps drawn by different groups are presented visually, and teachers and students are required to make comments together. In this way, it is not only convenient for students in other groups to compare and understand their own strengths and weaknesses, but also can provide effective basis for the following education implementation. Finally, teachers should guide students to redraw a complete mind map according to the above financial processing process, and ask students to identify the main factors of financial problems in combination with practical cases. In this process, the use of pictures, colors, symbols and other different elements can not only attract students' attention in class, but also improve students' interest in all aspects.
3. Result analysis

Taking the financial accounting class of Grade 2020 in a university as an example, students in two classes were selected as the experimental group and the control group to explore the application effect of mind mapping education reform. After a period of teaching training, it is found that the teaching effect evaluation results based on the mind map are shown in Table 3:

Table 3 Experimental results

<table>
<thead>
<tr>
<th>Examination grade</th>
<th>Number and proportion of interactive teaching classes based on mind mapping</th>
<th>Teaching and proportion of traditional teaching classes</th>
<th>total</th>
</tr>
</thead>
<tbody>
<tr>
<td>excellent</td>
<td>20 (33.33%)</td>
<td>10 (18.52%)</td>
<td>30 (51.85%)</td>
</tr>
<tr>
<td>good</td>
<td>12 (20%)</td>
<td>6 (11.11%)</td>
<td>18 (31.11%)</td>
</tr>
<tr>
<td>medium</td>
<td>18 (30%)</td>
<td>20 (37.04%)</td>
<td>38 (67.04%)</td>
</tr>
<tr>
<td>qualified</td>
<td>10 (16.67%)</td>
<td>15 (27.78%)</td>
<td>25 (44.45%)</td>
</tr>
<tr>
<td>Unqualified/disqualification</td>
<td>0</td>
<td>3 (5.55%)</td>
<td>3 (5.55%)</td>
</tr>
<tr>
<td>total</td>
<td>60 (100%)</td>
<td>54 (100%)</td>
<td>114 (100%)</td>
</tr>
</tbody>
</table>

Based on the analysis of the above table, it is found that the overall performance of mind-map based teaching is more outstanding, and the number of outstanding students reaches 20, while the number of outstanding students under the traditional teaching mode is 12. This data change proves that mind mapping education reform has a positive effect. At the same time, each student is given a learning evaluation form, which is required to be completed within the specified time. Each form contains two parts, one is to summarize the first two knowledge points, the other is to complete the test questions designed by the teacher. The final learning evaluation test result is shown in Figure 2 below:

![Figure 2 Evaluation results of learning tests](image)

Based on the above analysis, it is found that mind mapping, as an efficient learning tool, has been recognized by most students and has a positive impact on the financial accounting education reform in colleges and universities. Therefore, scholars in the field of education should continue to study how to reform and optimize the teaching mode and main contents of mind mapping based on the accumulated experience of financial accounting practice education in colleges and universities, comprehensively improve students' learning efficiency and quality, and truly achieve the expected goal of talent training.
4. Conclusion

To sum up, as mind mapping can facilitate students' memory, understanding of professional knowledge of financial accounting, and comprehensively improve their self-learning awareness and imagination and innovation ability, in the current educational innovation in colleges and universities, teachers should strictly follow the basic principle of step by step based on the original teaching experience, and encourage and support students to independently draw mind mapping using professional software. This can not only improve the financial accounting practice education mode in colleges and universities, but also give full play to the unique role of mind mapping in classroom teaching.

References