The Reform Practice of Logistics System Simulation Based on Sharing and Hierarchical Teaching

Duan ZHENG
Xi’an International University, Xi’an, Shaanxi, China
121198904@qq.com

Keywords: Hierarchical Teaching, Logistics System Simulation, WeChat Public Platform.

Abstract. Based on the teaching reform practice of the logistics system simulation and the hierarchical teaching sharing platform, this paper carries on the reform to the logistics system simulation course from the teaching organization to the evaluation methods. It can not only effectively solve the problem that students can not fully be taught in accordance with their aptitude, but also mobilize the enthusiasm and initiative of students, and promote the healthy growth of all students.

Introduction

With the rapid development of higher education, the quality of higher education has been paid more and more attention. Because of the differences in students learning background, starting point, learning ability, and learning style of college students, the traditional teaching methods have highlighted many drawbacks, teaching efficiency is not high, there is a “broad brush” phenomenon, and many universities have begun to try hierarchical teaching. Hierarchical teaching is an effective way to optimize the class teaching system, which is conducive to the development of students’ personality, and improves the quality and efficiency of classroom teaching. But at present, the research on the hierarchical teaching mainly focuses on how to carry out the hierarchical teaching according to the students’ intelligence factors in the classroom teaching and without considering the non intelligence factors. And due to the limitation of time and space, there are difficulties in stratification and implement, the effect of stratification teaching is still far from our expectations. In order to improve the application efficiency of the hierarchical teaching in the course and create a new interactive learning mode, this paper attempts to use the shared economic principle to introduce the multi-level and interactive micro to break the constraints of time and space, and strive to solve the problems existing in the current teaching, from the four dimensions of the teaching objectives, teaching content, teaching activities, and teaching evaluation based on shared hierarchical teaching design principles and the basis of information technology, so that the model can run through the pre-class, class, after class, break the constraints of time and space, to achieve effective integration of the traditional classroom and shared platform and content learning effective solution to the current hierarchical teaching stratification. According to the serious problems of singleness and polarization, individualized teaching in the real sense can arouse the initiative of students to promote the healthy growth of all students.

The Theoretical Basis of Sharing and Layering Teaching

The hierarchical teaching first appeared in the United States at the beginning of the 20th century, in the face of a large number of immigrants, how to make these different backgrounds of migrant children get more effective education, some scholars put forward the education of migrant children’s individual ability and learning achievement for reference before they classify them (layered) education. In the late 40s, Britain began to implement hierarchical instruction in primary and secondary education. Students were assigned to different levels according to their abilities, and they were always learning all the subjects in one class. The French government also began the experiment of hierarchical teaching in 1970s. It clearly stipulated that in the junior middle school
grade four, the courses were divided into elective courses and compulsory courses, and three years in senior high schools were divided into ordinary full time high schools and vocational high schools. Overall, the hierarchical teaching has experienced a low to popular from the rise of the development process in foreign countries, although a variety of criticism and reform movement has been carried out from time to time, it is undeniable that hierarchical teaching has been hitherto unknown development in foreign countries, and put forward a variety of teaching mode and teaching philosophy provide the basis for worldwide teaching.

In China, the thought origin of the hierarchical teaching can be traced back to the spring and Autumn period, when the educator Confucius put forward the “individualized” thought, according to the students’ different qualification to different guidance, which is reflected in the earliest teaching thought. As a form of teaching, the experiment can be traced back to the Republic of China. It was organized by the Bureau of social thought at that time, and the students were classified by sex. There was an all-girls school and a male school, and the subjects were taught in different subjects. Since 1980s, the concept of hierarchical teaching has been introduced into China, and the research and practice of hierarchical teaching has been actively carried out in domestic institutions of higher learning. There is hierarchical teaching for a discipline, and the practice of hierarchical teaching is applied to all courses. Through the analysis and combing of the literature, in the hierarchical teaching of student stratification, most of the research is in accordance with the student’s academic performance to stratification, although some scholars also take into account the students according to non-intellectual factors to stratify, but how to classify students according to the non-intellectual factors is not elaborated in the practical application of hierarchical teaching. In the practical application of hierarchical teaching, the practice of applying to secondary schools and secondary schools is very practical. The application of colleges and universities is mostly on the application of hierarchical teaching in subject teaching. No systematic research is carried out. The application in the discipline field mainly focuses on mathematics, college English and many other subjects. The above research and practice of hierarchical teaching provide a reference for further development of hierarchical teaching.

“Logistics System Simulation” Curriculum Reform Needs

“Logistics system simulation” is a elective course for the undergraduate students of our school logistics management majors, the course of application, strong comprehensive, mainly in order to cultivate and improve the modeling and simulation of logistics professional practice ability of students, so that students can through the course of learning to master the methods and means of design, development and the optimization of the logistics system. But the teaching effect of the traditional teaching model is not ideal, especially in the practice of experimental teaching and curriculum design. First of all, experimental courses generally focus on simulation software for teaching, the teaching mode of this course is often “into” software training, students can only learn to master the basic functions of simulation software, but do not master the application of simulation software to solve practical problems. Secondly, students in the experiment are often interested in the realization of the model and 3D effects, while ignoring the data correction and model optimization behind the practical significance, thus it is difficult to grasp the practical problems of abstract and modeling ability. Thirdly, due to the different points of students’ interest and the ability to accept different knowledge, there is an uneven phenomenon in the course, the students with higher acceptance are not satisfied with the content of classroom teaching, and some students still can not keep up with the progress of the class. And the traditional classroom teaching mode belongs to the typical line, need fixed time and place, once they left the classroom or room, teachers’ teaching and students’ learning will stop, which greatly restrict the sustainability of classroom teaching. The traditional single classroom teaching model also brings a single evaluation mechanism, the current “logistics system simulation” teaching assessment is simply set for the end of the machine test results combined with the usual performance points as the final assessment results, between the two set a certain weight, or to examine the way, students complete several major operations and final examinations, teachers according to the situation to give the score, although these characteristics have their own evaluation, but can not fundamentally
change the teaching effect of the course. How to change the above problems, to use of WeChat public platform to build hierarchical teaching mode, to meet the different needs of students, take corresponding teaching objectives, teaching contents and teaching methods, it is very important that each student can get their own growth from learning.

Reform of “Logistics System Simulation” Course Based on Sharing and Hierarchical Teaching

During the course of the “Logistics System Simulation”, students are required to master the operation of Flexsim software and use the software to realize the planning and management of warehousing systems, inventory systems, production logistics systems, distribution center systems, port logistics systems, supply chain system planning and design, operation management, comprehensive performance evaluation, verification of various schemes comparison, finally achieve the purpose of optimizing the system, provide decision support for managers. According to the characteristics of the course, the students are divided into three levels: basic learning level, improving learning level and innovative learning level. According to the characteristics of students at different levels, the hierarchical teaching design is carried out, as shown in Table 1.

Table 1. “Logistics system simulation” curriculum hierarchical teaching design table.

<table>
<thead>
<tr>
<th>Teaching Design</th>
<th>Student Level</th>
<th>Teaching Objective</th>
<th>Teaching Content</th>
<th>Teaching Method</th>
<th>Counseling Method</th>
<th>Sharing Platform</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Basic learning layer</td>
<td>Improve learning level</td>
<td>Innovative learning layer</td>
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<td>Teaching Design</td>
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<tr>
<td>Design</td>
<td>Basic content</td>
<td>Improve content</td>
<td>Innovative content</td>
<td></td>
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<tr>
<td>Teaching Objective</td>
<td>Train students to master basic knowledge and basic experimental skills</td>
<td>Train students’ ability to apply the theoretical knowledge of textbooks to practice</td>
<td>Train students to systematically use the knowledge, skills and techniques of various disciplines in this field to cultivate their interest in scientific research and to improve their creative ability</td>
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<tr>
<td>Teaching Content</td>
<td>Students are required to learn and experiment according to the methods prescribed in the textbooks</td>
<td>The teacher sets up the path of completing the task in advance, lets the student independently or cooperate with other schoolmates, through teacher’s instruction to complete the inquiry of the set task</td>
<td>Teachers only point out the direction of inquiry, do not lock specific tasks, and encourage students to design and accomplish tasks in their own way</td>
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<tr>
<td>Teaching Method</td>
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<td>Counseling Method</td>
<td>Through the teacher’s demonstration operation, let students to verify imitation</td>
<td>Through the recursive guidance, teachers ask students to constantly question and dispel doubts according to the predetermined path, and guide the students to complete the task in the process of exploration</td>
<td>Teachers only determine the direction of inquiry, not clear specific tasks, students carry out research activities in accordance with the direction. The focus of teacher guidance lies in the inspiration of ideas, and through interactive discussions with students, broaden the students’ thinking, so that students can eventually complete their tasks in their own independent inquiry.</td>
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<tr>
<td>Sharing Platform</td>
<td>WeChat public platform, Baidu SkyDrive</td>
<td>WeChat public platform, Baidu SkyDrive</td>
<td>WeChat public platform, Baidu SkyDrive</td>
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</table>
operation of students, and innovative learning layer corresponds to a solid foundation, practical handsome ability of students.

In the practice of hierarchical teaching, we should analyze the students’ level characteristics and teaching contents and objectives, study and refine the methods and steps to achieve the goal, develop or select suitable teaching materials for the characteristics of laboratory and network teaching environment, and all of the teaching activities should cover both classroom teaching and network teaching content. In the teaching implementation process, re-review the teaching analysis, audit teaching strategies, to modify and summarize to achieve the ultimate efficiency and effectiveness of the quality of teaching standards. “Logistics system simulation” hierarchical teaching design model is shown in Figure 1. The experimental teaching environment includes the real experiment places computer room for the students in the experimental process, teacher according to the students’ level and the operation condition of the person of teaching, and with the help of the sharing economy principle, all levels of students were selected more receptive student counseling for other students at this level, students make progress together in the mutual help and mutual progress; network teaching environment is mainly based on WeChat and Baidu Sky Drive public platform, the students of all levels required information and business success case and other development through these platforms for students to share, and provide a flexible online discussion, answering questions, comments and other ways to communicate with students interactive teaching environment mainly refers to the other; the use of WeChat mobile phone functions will be pushed to the teaching management information for each student in sight, so that students can receive teaching support in an accurate and timely manner, so as to actively participate in teaching activities.

![Logistics system simulation](image.png)

**Figure 1. “Logistics system simulation” hierarchical teaching design model.**

At the same time, the “logistics system simulation” assessment methods also carried out hierarchical sub-exploration, by setting different levels of different weight points, the actual business model with multiple modeling methods of assessment, encourage the students to challenge themselves, from their own conditions, in the process of learning to explore and meet the challenge.

**Conclusion**

Through the reform practice of the course, it is obvious that students are better than the traditional teaching mode in the aspects of learning enthusiasm and practical ability. Students can consciously acquire relevant knowledge and skills and participate in every aspect of teaching. The experimental report is more standardized, rigorous, and effective to improve the quality of the course of teaching.
References

