# **Exploration and Practice of Dynamic Hierarchical Teaching in Curriculum --3DMAX Course**

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#### **Abstract**

According to the differences of students in understanding level, intelligence level and learning methods, this course adopts the comprehensive utilization of online and offline resources, and explores and practices the dynamic hierarchical teaching combined with different levels of students. Practice has proved that: dynamic hierarchical teaching is not only conducive to the development of each student's autonomy, exploration and creative potential, but also helps to lay a two-way growth foundation for each student's personality and study, and also helps to improve teachers' comprehensive ability in all aspects, and ultimately improve the quality and efficiency of classroom teaching.

# **Keywords**

## **Dynamic Stratification, Education, 3DMAX.**

#### 1. Introduction

The so-called hierarchical teaching method is a kind of teaching method in which teachers implement hierarchical teaching in accordance with the obvious differences in students' knowledge level, intelligence factors and non intelligence factors, so that students at different levels can achieve the corresponding teaching objectives at different levels. Hierarchical teaching method can not only ensure that all students can meet the basic requirements of the curriculum standards, but also promote the students with better learning ability to further improve, so that all students can improve their knowledge, skills and ability. Layered teaching enables students at all levels to obtain different successful experiences. This happy mood greatly improves the relationship between teachers and students, thus improving the efficiency of cooperation and communication between teachers and students. In the process of implementation, dynamic hierarchical teaching is a kind of teaching method that divides the class into three categories according to the difference of students' ability, arranges the corresponding teaching content for each category of students, and optimizes and updates rapidly according to the specific learning situation. This method not only benefits students, but also teachers. The implementation of hierarchical teaching method avoids some students doing nothing after finishing their homework in class. At the same time, all students experience that they are successful in learning and enhance their confidence in learning.

## 2. Three-dimensional space expression -- 3DMAX course analysis

Three-dimensional space performance -- 3DMAX is the core skill course of environmental art design major in higher vocational colleges. The practice object of this course is grade 19 students of Wenzhou Vocational and technical college. The dynamic hierarchical teaching method based on the difference of students' ability to master software has a good overall effect, but it also has many shortcomings and needs to be improved.

## 3. Curriculum specific measures

First of all, it introduces from the student organization. In order to strengthen the pertinence of teaching, students are divided into three groups: group A, group B and group C on the basis of investigation and analysis. Group A is the students who teach according to the basic requirements of

the syllabus; group B is the students who teach according to slightly higher basic requirements; group C is the students who teach according to higher requirements for students who are engaged in teaching, this higher requirement refers to the ability to give full play to their special skills. The situation of this group is not publicized, and students are allowed to choose and complete it by themselves, which is intended to protect backward students and avoid the adverse impact on good and bad students. And the students grouping is not invariable, but with the change of learning situation to be adjusted in time. In this practical teaching, 40% (20/50) of the students have adjusted and improved their grades in the hierarchical teaching, which can be found in the selection of homework grades. This effect is very good.

The second is the way of layered lesson preparation. Layered lesson preparation is a prerequisite for the implementation of layered teaching. On the basis of a thorough understanding of the syllabus and teaching materials, we should determine the teaching objectives of different levels, grasp the bottom line of the basic requirements, and deepen and expand them step by step according to the level of advancement and promotion. In this practice process, although the overall situation is good, but some backward students have a certain degree of psychological attack, how to more effectively and more naturally solve the embarrassment of students' difficulties and specialty, the development of students' potential still needs further measures to be implemented. In this process, can also let some good strong students arouse the spirit of learning, to be advanced transformation, also let some of the more excellent students have higher standards to ask themselves, to further improve.

Third, hierarchical teaching. Layered teaching is the core of layered teaching. According to the division of student level to grasp the starting point of teaching, deal with the process of convergence between knowledge, easy to reduce the gradient of teaching; teaching process follows the teaching purpose of "students as the main body, teachers as the leading, training as the main line, ability as the goal", so that all students can learn, learn to learn, to ensure the final implementation of hierarchical teaching objectives. Stratified teaching needs to follow the students' psychological cognition law, students explore new knowledge under the guidance of teachers, but different students have different basic knowledge, knowledge level, intelligence level, learning methods, etc., so their acceptance of knowledge is different. If teachers adopt the "one size fits all" method, it is bound to produce "excellent students can not eat" As a result, eugenics will lose confidence in their teachers, feel that they can't learn what they want in class, and turn to expand their knowledge by themselves, but lack of reasonable guidance; middle school students are not willing to communicate with their teachers; while students with learning difficulties are afraid of "eating" and can't "eat", which will lead to a vicious circle. I suffered this loss in my career, the whole classroom students and teachers are almost reluctant to communicate, this result is cold and realistic. In order to avoid the recurrence of this kind of phenomenon, the core implementation step of hierarchical teaching is to spend energy to implement and realize. This not only requires teachers to expand their own professional knowledge reserves, clear the connection and transition between knowledge points, but also requires teachers to have a clear control and grasp of students' stage and knowledge level, and can stimulate students through a variety of positive means. Let students not only be willing to participate, but also actively participate in the curriculum practice. The classroom teaching method is combined with the network resources of the national resource bank to give intensive lectures on knowledge points. This effect is more prominent. In the classroom, students are allowed to popularize and self-study knowledge points by themselves by using "the summary of basic knowledge points, the dredging and on-demand of difficult and key points". At the beginning, students are not used to this method, but after several times of running in, students are also better than others More willing to accept and support. This transition also requires teachers to gradually guide and get used to it. This requires teachers to expand the resources sufficiently and let the process form rules, which is helpful for both sides to establish a relatively stable paradigm.

Fourth, classified guidance. Classified guidance is the key factor in the implementation of hierarchical teaching. In the process of teaching, teachers take different methods to help and guide students at different levels. In this process, it varies from person to person and embodies the teaching principle

of "teaching students in accordance with their aptitude". In addition, it is necessary to carry out homework correction, set up extracurricular activities learning groups and other necessary auxiliary means, strengthen the guidance of students at all levels, promote the transformation of students from low level to high level, optimize the students as a whole, and then develop students' personality. This process puts forward higher requirements for teachers to play the role of "director", and the purpose is to control the progress of students in the state of learning. In the process of practice, especially the interpersonal interaction between students, it is difficult to achieve. Although the awareness can be combined with the differences of students' level and the sense of cooperation to form a collective force conducive to the coordinated development of each member. However, due to the age characteristics of grade 19 students and the personality of students in this class, they are less willing to take the initiative to help others, especially the top students are more passive or even reluctant to treat the underachievers. The underachievers feel left out and have a certain psychological attack. This is also a difficult point that I have not yet overcome. I hope to find a more appropriate and effective way to alleviate it in the next practice.

### 4. Course effect

The practice of this course adopts the way of comprehensive utilization of online and offline resources, combined with different levels of students to give dynamic hierarchical teaching. In this practice process, after many attempts, we can effectively organize the teaching of students at all levels, flexibly arrange different levels of strategies, and greatly exercise the ability of organizational regulation and adaptability. Hierarchical teaching itself leads to the thinking and students in hierarchical teaching challenges are conducive to the overall improvement of teachers' ability. The result is two-way and win-win. Of course, hierarchical teaching will also bring more workload than traditional teaching. In order to improve their own quality, we should actively explore more and more effective hierarchical teaching methods to improve their teaching efficiency.

### 5. Conclusion

Facts have proved that dynamic hierarchical teaching is not only conducive to the development of each student's autonomy, exploratory and creative potential, but also to lay a foundation for the two-way growth of personality and learning for each student. It is also conducive to improving teachers' comprehensive ability in all aspects, and ultimately improving the quality and efficiency of classroom teaching.

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