The Important Role of Teaching Design in Vocational and Technical Education

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Abstract: Teaching design is not only an indispensable part of classroom teaching but also an important means for teachers to do a good job in teaching. The teaching quality can be improved by the teaching design in the teaching process, as well as by the adopt of effective teaching methods.

1. Introduction

Teaching design is an important part of teaching. Through teaching design, we can optimize the teaching process, apply the existing teaching theory and teaching results to the actual teaching, and improve the teaching quality. Teaching is a complex system engineering, which is different from other work. What he is facing is some people with thinking. To be exact, teaching is the education of human growth and development. For a long time, we have been using the traditional teaching ideas and methods to teach, but with the rapid development of information technology, people have more and more ways to acquire knowledge, especially the development of network technology provides a broader space for people to acquire knowledge, so the traditional teaching ideas and methods have been difficult to adapt to today's education objects. This puts forward a higher requirement for teachers who are engaged in education and teaching. It is very important to integrate teaching design into teaching work.

Teaching design is to use scientific attitude and scientific methods to creatively solve and analyze the problems in the actual teaching work. In the process of teaching, teachers are faced with some educational objects with individual differences. In order to make every educated object gain something through the teaching process of teachers, it is necessary for teachers to carefully design every lesson before teaching, and strive to give consideration to every student.

2. The Basic Point of Teaching Design "Effective Teaching"

2.1 Teaching Value

The purpose of teaching design is to design and plan. The "value" or "unworthiness" of teaching design lies in Teachers' overall planning of knowledge structure, students' personality and needs, curriculum resources, teaching methods, etc.. Valuable classroom teaching actually refers to the effectiveness of classroom teaching. The effectiveness of teaching is like an athlete running a race. It must pay attention to the three elements of speed, experience, and results. Here, speed can be regarded as learning time (length) investment in classroom teaching; experience can be regarded as learning experience (bitter music) experience in classroom teaching. The results can be regarded as the output of learning results (harvesting) in classroom teaching; it can be said that time, experience and results are the three indicators that measure students 'effective learning, and also the indicators that measure teachers' classroom teaching. Learning time refers to the time it takes to learn specific content. It means learning efficiency, that is, the speed of learning. Obviously, if the learning speed is fast, the time spent learning specific content is less, and the efficiency is high. To save learning time and improve learning efficiency, the first requirement is to spend time on learning. Classroom teaching cannot waste time on non-learning. To achieve this goal, we must make preparations before class, carefully analyze the students in this class, make presets according to the actual class, generate in the class, and reflect on the generation and preset after the class. It is conducive to the

summarization of experience in order to benefit students' investment in learning, which can enhance the value of classroom teaching. The learning experience refers to the students' learning experience, that is, the psychological experience accompanying or arising from the learning activities.

2.2 Effective Teaching

The effect of teaching is embodied in achieving the goal that learners want to achieve. Effective teaching refers to whether the teaching has done a good job worth doing. The core of effective teaching is the pursuit of maximizing the benefits of classroom teaching, which is the focus, difficulties and hot issues of current education and teaching activities. Whether the classroom teaching is effective depends mainly on whether the teacher's teaching activities have driven the students' progress and development. In short, an effective teaching class is to be "effective, effective and efficient". Among them, effective means: first, the students 'academic achievements are good and passable; second, the students understand and learn; and second, the students' learning attitudes have improved and they have become more and more interested in learning. Effectiveness means: first, students can apply the knowledge they have learned to their lives; second, students can learn to learn; third, students can learn to be humans from learning. Effectiveness means that teachers can complete the teaching tasks in the shortest time and at the lowest cost, and reach the teaching goals. Effective when it is effective. In economics, the use of commodities as things that satisfy people's subjective wishes is called utility. What is effective is to emphasize what is learned (with results), and what is effective is to emphasize that learning rhyme can be used by students (benefit). That is to say, what is learned and useless, even if it is effective, is not effective. Students get high scores by memorizing and practicing repeatedly, even if their cognition is improved, their grades are improved, and their teaching results are not effective. Of course, if the knowledge learned by the students themselves is useless, inactive, meaningless, and valuable, then no matter how the students learn, there is no benefit.

From the perspective of economics, efficiency refers to that enterprises must not only produce something, but also produce what can be sold for human use. The former is output (effect) and the latter is benefit. Teaching efficiency is actually a reflection of teaching value. Specifically, teaching efficiency refers to whether and to what extent teaching and its results are in line with the needs of social and personal development. "Whether it fits" is a stipulation on the quality of teaching effectiveness, and "degree of fit" is the grasp of the quantity of teaching effectiveness. Obviously, teaching efficiency emphasizes the purpose and value of teaching and its results. Specifically, it manifests itself in social benefits, in line with society's requirements for cultivating people, and strives to create qualified and excellent citizens; for personal benefits, it lays the foundation for the development and happiness of individuals in life, and guides individuals to learn, learn to survive, and learn to cooperate, Learn to innovate, and promote the growth and development of personal wisdom, quality, physique and other aspects.

2.3 Teaching Efficiency

The efficiency of teaching is embodied in helping learners to achieve their goals with the least investment. Efficiency refers to whether teaching has achieved as much as possible. Effective when it is effective. In economics, the use of commodities as things that satisfy people's subjective wishes is called utility. What is effective is to emphasize what is learned (with results), and what is effective is to emphasize that learning rhyme can be used by students (benefit). That is to say, what is learned and useless, even if it is effective, is not effective. Students get high scores by memorizing and practicing repeatedly, even if their cognition is improved, their grades are improved, and their teaching results are not effective. Of course, if the knowledge learned by the students themselves is useless, inactive, meaningless, and valuable, then no matter how the students learn, there is no benefit." Efficiency refers to the amount of work completed in a unit of time." Teaching efficiency refers to the teaching output obtained within the unit of teaching input. The effective and effective teaching is determined by the results produced by the teaching and the results are expected, but neither of them consider the relationship between teaching input and teaching output. If large and large teaching input only obtains small and small teaching output, then

this kind of teaching is not effective teaching. Therefore, effective teaching must be efficient under the premise of ensuring effectiveness and effective use. Teaching efficiency means that as many teaching outputs as possible are produced within a certain amount of teaching input. According to this definition, reducing input and increasing output has become the goal pursued by teaching activities. Comenius pointed out on the title page of the book "The Great Teaching Theory" that the main purpose of writing this book is to "find and find a teaching method so that teachers can teach less, but students can learn more; make schools There can be less hustle, disgust and useless labor, more leisure, happiness and solid progress. " The class teaching system he advocated puts forward a new concept of effective teaching, that is, school teaching should reduce input and increase output. Teaching efficiency can also be understood as that teachers and students obtain as much teaching output or teaching income as possible with as little teaching input or teaching consumption (time, energy, etc.) as possible. If you have a broad understanding of teaching, given that the direct performance of teaching input is the input of teachers and students' time, energy, effort, etc., the direct performance of teaching output is the teaching effect. Following the concept of economics, teaching efficiency can be expressed as: teaching efficiency = Teaching output (teaching effect) / teaching input.

2.4 Charm of Teaching

The charm of teaching lies in whether it can attract learners to continue learning. Charm refers to whether teaching has long-term and far-reaching appeal, penetration and affinity. Teaching charm is a teaching concept that promotes equal emphasis on effectiveness and efficiency. Effectiveness, effective use, and efficiency are three dimensions of effective teaching. Effectiveness refers to what one learns and gains; Effective use refers to what is learned is valuable and useful; Effective means that the learning process and method are scientific, concise, and time-saving. Effective teaching is effective and efficient. Just like the length, width, and height of a cuboid, the three are indispensable, and the lack of any one dimension cannot constitute a complete effective teaching. Visually speaking, effective teaching is a "how fast and economical" teaching. The so-called "more" refers to the students' rapid progress and more gains in the unit time; the so-called "fast" refers to the short teaching time of the unit. All of the time is devoted to teaching or learning activities; The so-called "good" refers to the quality of teaching, not the individual student's good performance, but the performance of the entire teaching object; the so-called "saving" is the time, energy and The achievements are in line with, of course, the ideal result is more with less. In short, teaching charm means that teachers and students are guided by curriculum standards, follow the laws of teaching activities, especially student activities, and use as little time, energy and material input as possible to achieve as many teaching effects as possible and produce the best possible Teaching benefits, so as to achieve specific teaching goals, meet the social and personal needs of educational value and organize and implement activities.

3. "Three Elements" of Teaching Design

3.1 Teachers' Teaching

3.1.1 Design of Teaching Objectives

In the teaching design, the teaching goal is the commander and soul of all teaching processes. The teaching which is separated from the teaching goal is ineffective and inefficient.

Teaching design of knowledge and skills objectives: it mainly includes the following steps: determining the type and level of knowledge and skills teaching objectives, and compiling teaching objectives.

Process and method objective teaching design: it includes two aspects: first, the teaching process design should pay attention to let students understand the process and method of forming relevant knowledge; second, it should pay attention to let students master the process and method of acquiring relevant knowledge and cultivating relevant skills.

Teaching design of emotion, attitude and values: teachers should design different levels of

emotion, attitude and values teaching objectives according to the characteristics of students' age, teaching content and teaching requirements.

3.1.2 Teaching Process Design

Teaching process is a process of interaction between teachers' professors and students' learning, which is composed of several teaching links that can achieve the predetermined teaching goals.
- Teaching design in the introduction stage.
- Teaching design in the new teaching stage.
- Teaching design at the end stage.

3.1.3 Teaching Content Design

The design of teaching content should be guided by the teaching goal and make the content serve the goal. Through the teaching of teaching materials, we can achieve the goal of teaching. When teaching the content of the textbook, the teacher does not repeat the content of the textbook to the students according to the textbook, but reprocesses and combs the content of the textbook and the ability and characteristics of the students to accept the knowledge, so as to highlight the key points and disperse the difficulties. With the rapid development of information technology, teachers should stand at the forefront of knowledge development and be able to apply the most advanced knowledge and technology to the design of teaching content.

The design of teaching content should also take into account the individual differences of students in learning, teach students in accordance with their aptitude, and leave enough space for students to digest knowledge, analyze and solve problems, and improve their ability. Under the guidance of teachers, students should gradually master knowledge and skills.
- Students' cognitive development teaching design.
- Students' emotional development teaching design.
- Teaching design of students' behaviour development.

3.1.4 Teaching Method Design

"Teaching, learning and doing" has become the mainstream of the curriculum. The form of expression is the integration of theory and practice, and the core is "learning by doing, learning by doing".
- Design of learning motivation.
- Learning method design.
- Learning environment design.

3.2 Students' Learning

The teaching work is the organic combination of teachers' teaching and students' learning. The good and bad teaching should be shown by students' mastering knowledge. In the teaching design, students' learning and how to learn should be put in the first place. Teachers must master and understand the characteristics and individual differences of class students, so as to achieve a targeted and clear goal in the teaching design.

Students are the main body of teaching, students' interest and enthusiasm in learning are the internal cause of teaching work, teachers' earnest teaching is the external cause of teaching work, and the external cause should play a role through the internal. The students of a class come from different families. They have the same characteristics, individual differences and the influence of social environment. Teachers should take these factors into full consideration when designing teaching. What new teaching content students have mastered, what students can learn by themselves, and what needs teachers' guidance and help. Through the deep understanding of learning situation, the teaching goal of teaching design can be targeted, practical and operational.

Make the students find the real starting point of learning, solve the practical problems in their future life and work through the learning of knowledge and skills, and make the students acquire the knowledge, emotion and belief integrated with their whole life through experience.

3.3 Application of Modern Educational Technology

Nowadays, the rapid development of science and technology, especially the development of

information technology with multimedia and network technology as the core, has greatly promoted and changed the field of education. In the past, the personnel training mode of one foot platform, one blackboard, two chalk and one textbook has undergone a fundamental change. Today, the wide application of computers, projectors and multimedia courseware provides a good hardware guarantee for the cultivation of talents. In teaching design, we should make full use of these multimedia network technologies to make up for the shortcomings of traditional teaching, give full play to the role of multimedia network technology in the field of education and teaching, and truly make students learn and grow in the fun of teaching.

4. The Promotion of Teaching Quality through Teaching Design

The success or failure of a class largely depends on the teaching design before class. Teaching design has a positive guiding role in improving teachers' teaching level, teaching ability and promoting the development of teachers' professional. Learning and using the principles of teaching design is an effective way to optimize classroom teaching and promote the scientific teaching. The teaching design, known as the "bridge discipline", integrates the existing theoretical results of education and teaching research into teaching practice, so as to maximize the optimization of theoretical teaching. It has cultivated teachers' habit of scientific thinking, improved teachers' ability of scientific analysis and problem-solving. At the same time, it also promotes the theory of educational technology to be sublimated and perfected on the basis of summing up practical experience, promotes the improvement of teaching quality, so as to further develop vocational and technical education.

5. Conclusion

In the process of teaching design, both old teachers and young teachers are able to improve their teaching abilities. On the one hand, old teachers can combine abundant teaching experience with modern multimedia technology to do the teaching design. On the other hand, young teachers, in the process of teaching design, can enhance their teaching experience and obtain modern education ideas at home and abroad through the network, so as to rapidly improve their teaching abilities.

Through the application of teaching design in the process of teaching, teachers can find out some problems timely in teaching, summarize experience in time, and enrich and modify the teaching process to form a new and operable education theory, so that the class is more suitable for the physical and mental development of students.

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