

# *Research on Strategies for Improving Classroom Teaching Effectiveness under the Background of Educational Informatization*

Ziyi Wang, Qian Wang

Zhejiang Normal University, Jinhua, Zhejiang, 321004, China

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**Abstract:** The effectiveness of classroom teaching has always been the focus of teaching attention. With the deepening of education information reform, the Ministry of Education attaches more and more importance to the cultivation of students' comprehensive literacy and innovation ability. In primary and secondary school teaching, if teachers want to ensure the teaching quality, they must pay attention to the effectiveness of classroom teaching and change the original teaching mode to ensure the effectiveness of classroom teaching. This paper first analyzes the basic elements of the effectiveness of classroom teaching, then explores the existing problems in classroom teaching, and finally analyzes the strategies of how to improve the effectiveness of classroom teaching.

## 1. Introduction

The effectiveness of curriculum teaching has always been a hot topic in education teaching, and how to improve the effectiveness of classroom teaching has always been a hot topic for teachers. Generally speaking, the effectiveness of classroom teaching means that students gain, progress and improve their studies through classroom teaching activities. Mainly manifested in the change from little knowledge to more wisdom, never like to like, never interested to interested. From the professional perspective, the effectiveness of classroom teaching refers to the development of students through classroom teaching<sup>[1]</sup>. The concept of effective teaching can be traced back to the Spring and Autumn period, when Confucius advocated "teaching students according to their aptitude". Subsequently, the idea of effective teaching in the West has been put forward one after another, such as Comenius' "class Teaching guidance", Herbart's "four-stage teaching method", Keloff's "six-stage teaching method", etc<sup>[2]</sup>. Today, with the in-depth development of education reform, it is of great significance to re-discuss the effectiveness of classroom teaching. At present, online classroom is developing towards the direction of intelligence, and improving the effectiveness of classroom teaching is the inevitable choice to construct new education forms and teaching modes.

The reform of education informatization is the focus of current education reform. The Ministry of Education has repeatedly issued documents pointing out that it is necessary to attach great importance to the construction and development of e-learning and make every effort to promote the development of information learning. In April 2018, the Ministry of Education clearly proposed to

actively promote the development of "Internet + education" in the Education Informatization 2.0 Action Plan. Take educational informatization as the endogenous force of systematic reform of education. How to improve the effectiveness of classroom teaching under the background of education informatization has become the most important topic of discussion.

## **2. The Basic Elements of Classroom Effectiveness**

Classroom teaching is a complex process system and a community of multiple factors. Classroom teaching includes multiple time points before class, during class and after class<sup>[3]</sup>. Effective classroom teaching is influenced by teachers, students, teaching materials, environment and other factors. Starting from different dimensions, the basic elements of classroom teaching effectiveness can be summarized into six aspects: teaching motivation, teaching objective, teaching expectation, teaching input, teaching organization, teaching quality<sup>[4]</sup>.

### **2.1 Teaching Motivation**

Teaching power is the resultant force formed by the confluence of multiple components. It is the internal power of teachers' continuous teaching and the source of power that promotes the operation and development of teaching cycle after cycle. Teaching motivation can be divided into pre-class motivation, in-class passion and after-class inquiry according to time. Pre-class motivation is the starting point of teaching and determines the overall direction of teaching. Teaching motivation is very important for classroom teaching. Effective teaching motivation must follow two basic principles: legitimacy and normality; Legitimacy means that teachers must comply with the legal requirements and moral norms, comply with the basic law of teaching, and do people-oriented. Normality means that the motivation of students and teachers should be stable within a certain range, preferably moderate. Too strong or too weak teaching motivation will hinder the implementation of teaching and go against achieving the best results. Passion in class is the power source of classroom teaching and determines the vertical height of classroom teaching quality. After-class inquiry is the after-class extension of the effectiveness of classroom teaching and the additional force of classroom teaching.

### **2.2 Teaching Objectives**

Teaching objectives are the positioning system of classroom teaching, which refers to the achievable expected results of teaching activities set by teachers and students, which can be measured by modern technological means. The ideal teaching goal is that both teachers and students can grow up, but in reality, the teaching goal pays more attention to the learning of students. Bloom's three-dimensional goal orientation is to guide students to all-round development. Therefore, in the formulation of teaching objectives, we should try our best to achieve "teaching and learning". We should start from the three dimensions of knowledge and skills, process and method, emotional attitude and values, pay attention to all aspects of students, and guide the all-round development of students with teaching objectives. In addition, the goal should be task-based, the task problem, adhere to the principle of moderate difficulty, and finally achieve the orientation of teaching objectives.

### **2.3 Teaching Expectation**

Teaching expectation is the concept system of classroom teaching and the long-term and rational teaching pursuit of teaching subjects (teachers and students), which is embodied in the long-term

vision of teachers and students under a certain social mechanism on a macro level. Teaching idea is an important navigation mark for the normal operation of teaching material system, and rational teaching expectation is the value pursuit and expectation of the whole society and mankind. Classroom teaching concept mainly includes three elements: teaching proposition, teaching value orientation, teaching ideal. The ideal teaching idea should include progressive teaching idea, balanced value orientation and critical teaching ideal.

## **2.4 Teaching Input**

In a broad sense, teaching input refers to various factors that affect teaching and learning activities. In a narrow sense, teaching input refers to the personal input of students and teachers, including both the time and energy allocated by students in a class and the energy and time spent by teachers for a good class. Teaching input is closely related to teaching quality, teaching input also needs to adhere to a certain "degree", too much teaching input cannot bring better results. On the one hand, it is necessary to select the knowledge suitable for students from the massive knowledge system. On the other hand, it is necessary to truly "people-oriented", return the classroom to students and let them become the subject of learning.

## **2.5 Teaching Organization**

Teaching organization is the link between students' learning and teachers' teaching. It is the way that teachers organize teaching activities according to teaching conditions, teaching objectives, teaching ideas and teaching contents. Classroom teaching is not the same, cannot be mechanized unity, but according to the characteristics of different classes and students, the organic organization of each teaching link. Therefore, it is necessary to process teaching knowledge and conduct situational training on skills based on students' learning situation and textbook structure and course content. In addition, attention should be paid to classroom time management and other matters, so that effective teaching time can play a greater role in teaching content.

## **2.6 Teaching Quality**

Teaching quality is the core embodiment of classroom teaching effectiveness, and the core of quality is the evaluation standard of quality. The teaching standard which has been used in our country is the evaluation standard formed on the basis of the five links of the teaching and learning class of Kailov. From the current perspective, this set of standards has many problems, such as pursuing a narrow view of knowledge, evaluation tends to utilitarianism and so on. Therefore, it is very important to establish a new view of teaching quality. The quality of classroom teaching should pay attention to the overall quality, which is the quality of all links in the classroom teaching system. The core teaching object of class is students, the most important thing in teaching quality evaluation should be the quality of students' harvest, should pay attention to the overall development of students.

# **3. Problems In Classroom Teaching**

## **3.1 Limitations of Teaching Methods**

Influenced by the traditional teaching mode, teachers tend to take teachers as the center in classroom teaching, ignoring the principal position of students, and students become passive receivers<sup>[5]</sup>. This traditional and single teaching mode has a great impact on the efficiency of

teaching. With the deepening of the new curriculum reform, the new teacher-oriented and student-oriented teaching mode should be widely promoted to replace the traditional teaching mode.

### **3.2 Teachers Neglect the Cultivation of Students' Innovative Ability**

With the rapid development of society, the demand for innovative talents is also increasing. School is the main place of personnel training, bearing a great mission. However, in the actual teaching process, teachers often neglect the cultivation of students' innovative ability, and pay more attention to the cultivation of problem-solving ability and theoretical knowledge. Students' ability to explore and innovate cannot be cultivated and their innovative thinking cannot be inspired, which goes against the goal of education in the new era and is extremely unfavorable to the future development of students.

### **3.3 Lack of Interaction and Guidance**

The classroom teaching under the new curriculum reform requires respecting and giving play to students' spirit of subject, encouraging students to read independently and think independently. However, the classroom teachers in advance usually adopt the teaching method of full classroom, which lacks effective interaction and feedback between teachers and students, and fails to carry out effective cooperation between students and students. As a result, students' understanding of knowledge is not deep and comprehensive enough, and they cannot help students overcome the subjective deviation caused by their own knowledge limitations, and students' thinking cannot be effectively and reasonably developed.

### **3.4 Students Can't Adapt to the Information-Based Classroom**

In the process of teachers using information means to teach, some students are still used to the traditional teaching methods, unable to adapt to the change of roles in a short time. These students are highly dependent on traditional teachers and cannot complete classroom tasks independently, while information-based teaching emphasizes students' ability to solve problems independently and learn independently. Once teachers change the traditional teaching mode, students will be unable to adapt to teaching, resulting in a decline in learning efficiency and other problems.

## **4. Advantages of Information-Based Teaching**

### **4.1 Effectively Promoting the Comprehensive and Balanced Development of Students**

Modern education requires all-round development of students, and also puts forward higher requirements for teachers' education and teaching work. However, the traditional teaching method is very simple, which cannot effectively promote the all-round development of students, but will cause certain restrictions on the future development of students. Information-based teaching can help the classroom and bring unexpected results. Teachers can enrich teaching methods through diversified teaching and effectively promote the comprehensive development of teachers.

### **4.2 Help to Improve Students' Attention**

In traditional classroom teaching, students' attention is easily disturbed by the outside world, resulting in low learning efficiency of students. Information teaching can effectively solve this problem. In teaching, teachers can use various information equipment to attract students' attention, enhance students' attention, and enhance the effectiveness of classroom teaching

### **4.3 Expand Classroom Teaching Content**

Due to various reasons, teachers and textbooks have certain limitations. Teachers can introduce online teaching resources into the classroom through the Internet, which can effectively help students expand their knowledge and better understand the world.

## **5. Strategies to improve classroom effectiveness**

### **5.1 Rebuild the Evaluation Criteria of Classroom Teaching Effectiveness**

The construction of the effectiveness of new classroom teaching should start from multiple dimensions and perspectives, and should follow the principles of "integrity", "long-term" and "characteristic"<sup>[6]</sup>. The effectiveness of classroom teaching should include all aspects of classroom teaching, the moment of classroom teaching and the whole of classroom teaching. In addition, a good classroom teaching should have a good degree of differentiation, reliability, difficulty. Teaching reliability refers to the reliability and consistency of assessment results, which is aimed at the "integrity" of classroom teaching. Teaching differentiation is based on the "characteristic" of teaching style. Teaching differentiation is an evaluation measure of the "commonness" and individuality of teaching, which determines the effectiveness of teachers' teaching behavior. Teaching difficulty is an effective evaluation standard for the "authenticity" of teaching level, and it is the manifestation of teachers' teaching skills. Generally speaking, teaching difficulty is directly proportional to teachers' teaching level and teaching quality.

### **5.2 Create Classroom Situations with the Help of Information Technology**

In recent years, with the rapid development of information technology, more and more educational applications are popularized in the classroom. At present, the most common or multimedia equipment, teachers can make full use of it, through multimedia to create teaching situation, to increase the interest of the classroom, Arouse the enthusiasm of students<sup>[7]</sup>. In addition, if conditions permit, schools can also purchase modern intelligent equipment such as virtual reality. The use of these equipment can make abstract teaching content concrete, provide a better teaching atmosphere for effective teaching, and help students better understand and feel. But now many teachers have the problem of low information literacy, unable to give full play to the value of these information technology equipment, which requires teachers to keep pace with The Times, continue to learn, improve themselves to adapt to the new era of teaching requirements for teachers.

### **5.3 Create Harmonious Class Relations to Provide Support for Effective Teaching**

Modern teaching research shows that students' psychological development is a process of interaction between intellectual activities and non-intellectual activities, as well as the interweaving of cognitive processes and emotional processes. Therefore, teachers should combine cognitive processes and emotional processes when carrying out teaching activities<sup>[8]</sup>. Teachers should first straighten out their own mentality, abandon the traditional "teacher-only theory", put themselves and students in the same position, pay attention to students' emotions, from the perspective of students, truly respect and understand students. Classroom teaching is not only a process of imparting knowledge, but also a process of emotional communication between students and teachers. In teaching activities, teachers should really implement the key points mentioned above. For example, teachers can carry out more activities between teachers and students in classroom teaching to narrow the distance between teachers and students, listen to students' ideas more. Make

teachers and students participate, share, learn and make progress together <sup>[9]</sup>.

#### 5.4 Strengthen Students' Practice Feedback and Extend the Effectiveness of Class

Students' learning in class includes not only the learning of knowledge in class, but also the practice after class. After-class practice is a major factor affecting the effectiveness of classroom teaching, a major part of classroom teaching, and an important guarantee to improve the quality of classroom teaching. Timely and sufficient after-class exercises can help students deepen their understanding of knowledge and expose their shortcomings in learning new knowledge. Teachers and students can correct their mistakes and deficiencies in time. Teachers must identify classroom practice and feedback as an organic part of classroom teaching and ensure the effective implementation of this link. Here, teachers can use a combination of online and offline to assign homework. Students, as natives in the Internet era, have a variety of ways and means to obtain information resources. Traditional homework assignment is less attractive to them, while the mixed online and offline mode can fully mobilize the enthusiasm of students.

### 6. Summary

The problem of effectiveness of classroom teaching is put forward to solve the problem of inefficiency or ineffectiveness of classroom teaching for a long time. It is also another way to express the problem of "What kind of class is good class." In order to solve the problem of effective classroom teaching, it is necessary to solve the problems existing in classroom teaching, and give full play to the advantages of information teaching in the actual teaching process with the help of education information, so as to effectively improve the effectiveness of classroom teaching. In the future, the application of information teaching in the teaching stage will be more and more extensive. The classroom is no longer just the transfer of knowledge, but also the guidance of methods and skills. How to further improve the effectiveness of classroom teaching still needs the research and exploration of teachers.

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