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# **Exploration on The Integrated Teaching Mode of Mathematics in Technical Colleges in The Information Age**

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## Abstract:

with the development of information technology, the education system in our country and the formulation and implementation of the new curriculum standard, to the mechanic college mathematics teaching put forward higher requirements, for the mechanic school students, mathematics knowledge learning itself has certain difficulty, at the same time the mathematics discipline itself has a strong practical and fundamental, so for the mechanic school students 'future learning is very important influence, so in the mechanic colleges integration teaching mode, can stimulate students' interest in learning, promote the improvement of classroom teaching quality. Next, we will analyze the problems existing in the current mathematics teaching, and put forward effective countermeasures, hoping to have certain reference value for mathematics teachers in technical colleges.

Key words: Informatization; Technical Colleges; Mathematics Teaching; Integrated Teaching Model

#### Introduction:

With the continuous development of modern society, education has become an important factor affecting the development of society, for the mechanic colleges, they need is skilled talents, and the social progress and the continuous development of economy, promote social demand for talent is also more and more high, in order to better adapt to the development of modern society, the mechanic colleges in mathematics teaching, should reasonably apply information technology, promote the promotion of mathematics classroom teaching quality.

1. The problems existing in mathematics teaching in technical colleges

#### 1. Backward teaching mode

Due to the wide range of contents involved in mathematics teaching, So mathematical knowledge goes deep into People's Daily life, But in practice, in mathematics teaching in technical colleges in China, Often adopt backward teaching models, Unable to effectively mobilize students' enthusiasm for mathematics learning, There is a disconnect between theory and practice, Most math teachers do not combine math knowledge with real life, As the teacher is explaining mathematics, Simply explain mathematical theory knowledge to students, Let the students recite the theoretical knowledge, Is not conducive to students' flexible use of mathematical knowledge, Lead to a reduction of Zhu Hui / Exploration on The Integrated Teaching Mode of Mathematics in Technical Colleges in The Information Age

students' math learning efficiency, It also encourages students to lose interest in learning math knowledge, The traditional teaching mode cannot realize the improvement of mathematics classroom teaching quality.

2. It cannot effectively stimulate students' interest in mathematics learning

Because the mathematics teaching mode, the theory knowledge and students 'actual life disconnection phenomenon, thus led to the students only understand theoretical knowledge, unable to use mathematical knowledge to solve the problems in real life, it is not true for students, for the mechanic college students, they tend to operate, teachers in mathematics teaching, only for the interpretation of theoretical knowledge, ignored the cultivation of the students' practical ability, then can lead to students lost interest in mathematics knowledge.

3. Poor ranks of math teachers

Teachers can be the beacon in mathematics learning, so the teacher's own teaching experience and professional quality will have a great influence on students' mathematics knowledge learning, produced great influence in the mathematics knowledge teaching, but in practice, the mechanic colleges in the selection of mathematics teachers, often ignore the mathematics teacher teaching experience, some teachers without mathematics teaching experience into the mechanic colleges of mathematics classroom, led to the imperfect mathematics teachers.

Application strategy of mathematics integrated teaching mode in technical colleges under the information age

1. Accurately understand and apply the integrated teaching mode of mathematics

Mathematics teaching can adopt integrated teaching mode, mainly in the integration of teaching ideas or teaching theory established under the guidance of relatively stable teaching framework and activities, as the main framework structure, effectively highlights the integration of teaching mode from the macro grasp the overall teaching activities and the relationship between various elements and function, at the same time as an activity program is effectively highlights the teaching mode of order and operability.

Now the mechanic colleges and universities in the implementation of integrated teaching mode exist some misunderstandings, both specialized and cultural courses using integrated teaching mode, think integrated teaching mode is universal, and even some schools set up the integration of teachers, this phenomenon is not conducive to the mechanic colleges teaching orderly, it will reduce the teaching quality. Mathematics teaching methods should be diversified, is not any mathematics classroom teaching is applicable to the integration of teaching mode, nor because of integration teaching mode to violate the teaching principle, in the specific mathematics teaching, teachers should according to the specific mathematics teaching content and students' learning situation of integrated teaching, regular classroom teaching itself has a unique advantage, efficiency is the goal mathematics classroom teaching, of so mathematics teachers should proceed from the reality of students, choose students like teaching methods, so as to efficiently achieve classroom teaching goals.

2. The main link of integrated mathematics teaching in technical colleges

In mathematics classroom teaching, the difficulty of integrated teaching is relatively high, which mainly lies in the mathematics teachers 'grasp of mathematics teaching materials, teachers' control of mathematics teaching link and their understanding of students' mathematics learning. Now the integrated teaching link is effectively analyzed:

# (1) Prepare before class

Mainly divided into teachers and students, first, teachers should according to the specific mathematics teaching task reasonable design teaching link, teachers not only focus on what to teach, but also should design how to teach, let Zhu Hui / Exploration on The Integrated Teaching Mode of Mathematics in Technical Colleges in The Information Age

students how to learn, and how to master the mathematics learning content, in addition, teachers should combine the actual situation of students, prepare the specific teaching content, reasonable design mathematics study group, let the students focus on discussion. Second, it is the preparation of students, students should be in accordance with the requirements of teachers, in advance of mathematics knowledge preview, and prepare mathematics related knowledge.

For example in learning the one yuan a inequality teaching, the teacher combines the actual situation of students, preparing, determine the teaching goal: let the students know one yuan an inequality concept, master a solution of an inequality, and realized in the teaching mathematics, analogy, and through the study of the concept of inequality, cultivate the students' knowledge transfer ability and modeling consciousness, at the same time, students use their spare time, for a yuan a inequality preview, knowledge complete guide case preliminary understanding a yuan an inequality knowledge.

# (2) Scene creation

In the creation situation of the teacher, Should have a certain attraction, At the same time, combined with the actual life of students, In learning math, for example, Teachers are good at combining the common situations in students' daily life, Let the students pay attention to the situational life, And to master the basic knowledge of mathematics, The main purpose is to guide the students to start from the mathematical knowledge, Focus on life, And use their own mathematical knowledge to solve the problems encountered in real life, At the same time, teachers can also prepare relevant mathematical materials for students, Let the students study deeply, And read the materials, Add some technical expertise to the process, Stimulate students' interest in math learning, Let the students use the existing knowledge to complete the mathematical tasks effectively. For example, in the learning series, teachers can introduce the production process of ramen, so that students can master how the series change from the situation of ramen.

# (3) Independent inquiry

Students independent inquiry is the key link of mathematics knowledge learning, in this link, mainly to let students solve the problem of mathematics, and let the students use their independence and interactive link to complete, at the same time, the teacher in the specific mathematics teaching, should be reasonable according to the mathematics teaching content, adopt diversified teaching mode, let the students to consult, observation and guess, and in the concrete action to verify their ideas in the idea, after prompting students to their own mathematical knowledge to summarize and induction, complete the mathematics knowledge learning.

For example, in the teaching process of Exponential Function, the teacher provides the students with multiple different functions for the students to observe:  $y=2^x$ , y=()  $\frac{1}{2}^x$ ,  $y=3^x$ take

part in y=() $\frac{1}{3}$  \*Find out the image characteristics, let the students actively draw the image, and summarize the properties of the exponential function in the observation, from special to general, Zhu Hui / Exploration on The Integrated Teaching Mode of Mathematics in Technical Colleges in The Information Age summarize the function knowledge. encounter controversial mathematical knowledge,

## (4) Mathematical presentation

Students' mathematics learning results should be concentrated, due to the mathematics knowledge learning is not like specialized courses for small class learning, so the teacher in display link can show some representative mathematical works, let the students to their mathematical works, if encounter controversial mathematical knowledge, teachers can let the students focus on discussion, and then to guide, prompting students to correctly grasp the basic knowledge of mathematics.

For example, in the teaching process of "The Image and Properties of trigonometric Function", students will summarize their own knowledge of functions, and the specific content is shown as follows:

	$y = \sin x$	$y = \cos x$	$y = \tan x$
定义域	R	R	$\{x \mid x \neq k\pi + k \in \mathbb{Z}\}$
图象	$ \begin{array}{c}     y_{1} \\     1 \\     \hline     1 \\     \hline     0 \\     \hline     1 \\     -1 \\     \hline   \end{array} $	уч <u>т</u> <u>т</u> <u>т</u> <u>з</u> <u>т</u> <u>т</u> <u>т</u> <u>т</u> <u>т</u> <u>т</u> <u>т</u> <u>т</u> <u>т</u> <u>т</u>	

3. Strengthen the school infrastructure construction and optimize the ranks of teachers

The relevant staff of technical colleges have realized that the infrastructure construction of mathematics is of great significance for mathematics teaching, further increase the capital investment, and do a good job in the maintenance of teaching infrastructure, to ensure the improvement of the quality of mathematics classroom teaching. At the same time for the construction of teachers, the mechanic colleges in recruiting efforts to put the good, organize regular mathematics teachers organize training work, and the introduction of teaching experience of strengthen mathematics teachers, the communication and communication between mathematics teachers, effectively enhance the mathematics teaching experience, teachers' promote the mathematics teacher teaching level and professional quality.

sum up:

To sum up, in the mechanic colleges mathematics teaching, mathematics teachers should consciously build integration teaching mode, and pay attention to stimulate students' interest in mathematics learning, so as to promote the quality of mathematics classroom teaching, rich mathematics teaching methods and means, so the mechanic colleges mathematics integration teaching mode is worth teachers to explore, prompting students to better adapt to the development of the future society.

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Zhu Hui / Exploration on The Integrated Teaching Mode of Mathematics in Technical Colleges in The Information Age

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