

# Research on the Application of Process Evaluation in Higher Vocational Mathematics Teaching

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**Abstract:** Mathematics is the basis of many other subjects, for which students learn math from an early age. Higher vocational colleges have lower requirements for students to advance to higher grades, and students' math scores are not high, but for some majors, they must have sufficient mathematical ability to proceed to the next step. Therefore teachers need to explore better teaching methods to improve students' abilities. At this stage, procedural evaluation, as a new educational tool plays an important role in education and teaching. This article therefore analyzes the specific process evaluation methods and studies the benefits they play in the mathematics teaching of higher vocational colleges, hoping to give teachers more reference in teaching.

## 1. Introduction

Teaching encouragement can enhance students' enthusiasm for learning, but from the perspective of the current state of education in China, teachers' evaluation in teaching has a lot of problems, and it can't play the role of evaluation correctly, resulting in students lacking motivation in learning. In order to improve students' learning problems, the author combined his teaching experience to play the role of process evaluation to improve students' mathematical ability.

## 2. Introduction to Process Evaluation

### 2.1. Process evaluation

Process evaluation refers to evaluating students' learning process, formulating reasonable evaluation methods according to the requirements of teaching goals, and playing a positive role in process evaluation to make students more motivated to learn. Therefore Teachers should use the procedural assessment to help students construct scientific learning methods, and under the guidance of the correct learning methods, students' exploration spirit and achieve deep learning.

### 2.2. The significance of process evaluation

Colleges and universities do not have high requirements for students' college entrance examination scores, especially their math scores are generally poor. Most students do not have good learning habits, weak learning will, and lack of self-confidence. They can't listen carefully in class. phenomenon. The role of procedural assessment is to change the problem of students' lack of concentration in learning. Teachers use language and grades to stimulate students in teaching, so that students can rekindle their interest in mathematics learning. Combined with the teacher's teaching methods to guide students in depth The charm of mathematics, so as to achieve capacity improvement, lay the foundation for the learning of professional skills.

## 3. Principles of Process Evaluation

### 3.1 Comprehensiveness

Process evaluation should implement the principle of comprehensiveness, and teachers should

not use only one aspect as the evaluation standard when teaching because this is contrary to the original intention of education. Education requirements promote the all-round development of students. On the other hand, excessive evaluation of teachers will obliterate other aspects of student development. Therefore, in the process evaluation, it is necessary to perform a flat evaluation from multiple aspects such as performance and attitude, and find their flash points, and change their shortcomings while playing flash.

### **3.2 Timeliness**

Many teachers not only give students evaluations in a timely manner, process evaluation should be carried out at the same time as education, but the traditional evaluation model used by teachers leads to delayed evaluation. For example, a classmate has made progress in math learning, but a progressive teacher will not immediately evaluate it, but will only give encouragement lightly after the student's performance has stabilized. Many students have lost their desire to learn in time because of evaluation.

### **3.3 Incentive**

Most teachers in higher vocational colleges think that the students are all grown-up and do not use the charm of language in the evaluation, as a result and simply give evaluations. Even some teachers did not take into account both positive and negative evaluations during the evaluation process, but just elaborated on one side, which caused a greater blow to students with learning difficulties. Therefore, teachers must play an active role in evaluation to let students gain strength in their evaluation, and also using this to improve their ability., because the evaluation methods are differentiated according to the specific conditions of students.

### **3.4 Continuity**

Teachers must adhere to the principle of continuity of process evaluation. Some teachers cannot implement the entire process of evaluation and student learning at the same time, because there is a lot of formalism in process evaluation. Other teachers insist on the evaluation of scores across the board and focus too much on results. The basis of the evaluation is also the achievement, which leads to the lack of attention in other aspects of the student's ability and cannot promote the comprehensiveness of student development., although some students think that they have the ability to learn mathematics well, but they will lose their interest because they cannot gain a sense of identity in their studies.

## **4. Problems in Evaluation of Mathematics Teaching in Higher Vocational Colleges**

### **4.1 Single evaluation form**

There is a single evaluation form for mathematics teachers, which is directly related to the importance of test-oriented education in current education. Even in higher vocational colleges, test papers are used to test students' professional skills. This makes teachers focus only on student performance, and cannot apply other criteria to evaluate students. The assessment should be implemented in accordance with the curriculum assessment requirements, which is to pay attention to the relevant records of the learning process, class arrivals, homework, experiments (practice), and assessments, as a clear basis for the final assessment of students, and form a grade file with the grade book save.

### **4.2 Neglecting ability evaluation**

At present, the demand of society for students is not only to have sufficient professional knowledge, but also to have sufficient knowledge application ability. Mathematics learning also lays the foundation for students' professional learning. Therefore, teachers need to not only teach the theory, but also improve students' theoretical and practical ability. For mathematics learning, it is to use mathematics to solve some problems and carry out mathematical experiments. After investigation, it is found that students have a high interest in the practical application of

mathematics.

#### **4.3 Lack of science**

The scientific nature of process evaluation needs to be improved. Most of the courses in "Applied Mathematics" are taught together. The over-students make the teacher not to pay much attention to all students in the teaching. In addition, the vocational students' learning habits are not good. Teachers must not only give lectures but also manage the class, and they cannot conduct a process evaluation of teaching, as teachers and students lack communication, only knowing that the names do not know people, making it impossible to conduct process evaluation. Therefore, the school also needs to strengthen cooperation to control the class size and facilitate teachers' scientific evaluation.

#### **4.4 Inadequate self-evaluation**

The self-evaluation of students is lacking, and many teachers do not adhere to the student-oriented concept in teaching and carry out according to their own experience. However, according to a questionnaire from a school in Tibet, students still have a high evaluation of their mathematics learning. Most students feel that mathematics learning has a certain depth and difficulty, but they are confident in themselves and think that through hard work, Mastery of knowledge and questionnaires they can provide the basis for teachers to formulate a reasonable teaching plan, in order to assist them during self-evaluation.

### **5. The Path of Process Evaluation Application**

#### **5.1 classroom evaluation**

According to the questionnaire, most students think that mathematics learning is necessary, but their learning spirit is not enough, and the task of the teaching is to help students build a scientific learning system through process evaluation. The learning behavior of students in higher vocational colleges is not good enough. Therefore, teachers should conduct attitude assessment, participation, cooperation ability and other aspects during classroom evaluation and the Specific evaluation should be formulated according to the emphasis of teaching.

#### **5.2 Assignment Evaluation**

Homework is an important step to consolidate mathematical ability, so scientific evaluation of homework is required. Homework evaluation is divided into two parts. One is the completion of individual homework, which is evaluated from attitude and accuracy. The other is group work. Contemporary society is a collaborative society and must have a sense of cooperation, and the difficulty of group work can be increases, for example, using mathematical software to make several images of different logarithmic functions, and to observe and summarize the images of logarithmic functions.

#### **5.3 Attendance Evaluation**

Higher vocational students have a lot of freedom, and some students are very playful, even greater than the thirst for knowledge. Some students skip class for no reason, and attendance evaluation is needed for this, because the attendance evaluation accounts for 10% of the total evaluation to regulate students' learning behavior, so the attendance is guaranteed in order to allow the students to appear in the classroom, thereby opening the door to knowledge.

#### **5.4 Test Evaluation**

Although the shortcomings of exam-oriented in education are gradually emerging, it is still the main evaluation standard for learning at this stage. Students can't master the knowledge, let alone improve their ability. Therefore, test results should be used as one of the evaluation standards, especially in mathematical knowledge, which reflects the individual's theoretical mastery through examination papers, which is also convenient to check for gaps and make up for more solid

knowledge.

## **Conclusion**

Education exist at any time, as long as there is education for anyone, the purpose of education is to help the future life and work through the correct guidance of the teacher and the necessary knowledge. The students in higher vocational colleges mainly focus on professional skills and lack of learning abilities, which makes them easily unable to focus on their studies. The teacher's task is to use effective educational methods to allow students to master as much as possible with more knowledge and the abstract nature of mathematics learning which is more difficult. Teachers in higher vocational colleges need to introduce advanced teaching methods to reduce the difficulty of learning and the research on process evaluation in this paper still has great deficiencies, and it will further study its scientific application methods in teaching.

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