

# The Explorations of PAD Class Education Model of the Course “Economic Math” in High Vocational Colleges

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**Abstract:** In recent years, the education sector has made innovations and improvements to the education model. A scholar from Fudan University has put forward a new teaching model, called PAD class education model, this model combines the teaching model with the discussion mode, he advocated that the time of teachers teach and students discuss should be bisected. This article based on the course "Economic Math", combined with years of experience and achievements in teaching, bring PAD class education model to the door of the classroom teaching, improve the students' learning autonomy and initiative, to enhance the effectiveness of student learning.

## Introduction

There is a Chinese saying goes “to teach one how to fish rather than just giving one a fish”. The purpose of our education is not only make students master the knowledge, but also to enable students to learn how to study, pay attention to the cultivation of students' way of thinking and self-learning ability. At this stage, our higher education is still dominated by teachers in the classroom, this model is still the mainstream of the education model. Therefore, it is very important to reform the higher education teaching. Only by changing the traditional teaching mode can we improve the teaching quality of college education. this course of "Economic Math" is a professional basic course of economic management specialty, it has an important role in the whole education system, but because of the theory of this course is very deep, so in the process of practical teaching, the teachers are often oriented in teaching mode, which leads to low participation of students in the classroom, it is not good to enhance the students' learning enthusiasm and initiative, this leads to the results of teaching is unsatisfactory. In order to change this situation, let the teachers and students' more and more interaction in the classroom, private exchanges have changed much, arouse the students' learning willingness, cultivate the spirit of exploration, students' thinking ability is improved, so the author chose this new teaching mode --PAD class(the Presentation-Assimilation-Discussion class).

## Brief introduction of PAD class

The PAD class is a new teaching mode, which is pointed out by professor Zhang Xuexin from the psychology department of Fudan University, it is a new mode of teaching reform. This new teaching mode combines with traditional model and today's discussion model, it has the advantage of both of fusion, divide the teachers teaching time and students discuss time, time to half of time is arranged to the teachers, let the teachers teaching theoretical knowledge, the other half of the time is allocated to the students and let the students carry on independent discussion. the most notable of this pattern is stagger the two time, which is what we call the "across the hall to discuss", this model

makes the students in the class have a long time to carry out self-regulated learning, let the students learn according to their own actual situation, further analysis and digest the contents of the classroom, then to discuss. This new classroom teaching model is clearly divided into the following three processes from the time: that is presentation assimilation and discussion. This new teaching mode can make students and teachers change their role, change of teachers from teaching to evaluation and guide, knowledge of the students from passive recipients of knowledge to discovery and communication. This model will really return to the students in the classroom, so that students play a leading role in the classroom, the teacher's dominant position in the classroom into an auxiliary position, give the whole initiative to the students.

### **PAD class of the Course "Economic Math"**

In the teaching practice, the author has carried on the teaching experiment to the economics specialized financial management class, this financial management class has a total of 60 students. The course of "Economic Math" is 4 times a week, each time for 45 minutes.

Explain the PAD class teaching mode to students in details, let students understand the characteristics of this model, to enable students to understand the teaching arrangements clearly. To enable students to clear the relevant requirements, make explain to students with the PAD class teaching mode, to enable students to understand the key point of this mode. Make the students clear know that the relevant requirements of homework is the reading notes, students can carry out auxiliary memory and understanding through reading notes in time to understand the content of the article, or by reading notes to write their own experience to the level of thinking and deeper. In addition, reading notes also include the following aspects: the first is the knowledge that students learn in this class. The second is to write down their own problems what they do not understand in the process of independent learning, and then discuss the other students for help. The third is to use their knowledge to challenge other students. On the other hand, while arrange the students to discuss, it also put forward many requirements, the time of the discussion, each student should actively speak in the process of discussing, let each group leader as a supervisor, and then let the teachers make comment to the students discuss process. The students will be divided into sixty groups, each of which is divided into fifteen groups, each with a group of four students, the members of the group are produced by drawing lots.

### **Arrangement of teaching contents**

The book "Economic Math" includes a total of content mathematical analysis, advanced algebra, probability theory and mathematical statistics, complex function, real variable function, program design, mathematical model, western economics, financial economics, quantitative analysis of financial investment, risk management, economic forecasting and decision making, analysis and design, the content of the knowledge is more complex, more difficult for students to understand, so the content of this question is mainly taught by the teachers.

### **Teaching arrangement**

When the teachers began to the first class of this course, the school teachers made a general introduction to the course of the introduction, the content of the story, the teacher taught on this course, students will need to be absorbed in them. Then in the next lesson, let students get the important knowledge points to firmly grasp, for the origin and evolution of some economic theory and "Economic Math" are understood, then stay out of time for students to discuss, and autonomous

learning after class, after class to collect the relevant information to read, and finally hand in the valuable data they think. In the next lesson, ask the students to discuss in the group, so that put forward the problems between students, to share their experience in autonomous learning, mutually solve the difficulties in the learning process, and then sent a team member to summarize the study situation of this group, interact communication in class and the teachers, let the teachers eliminating confusion, finally let the teachers tell the autonomous learning evaluation. In the first few classes, are based on teachers' teaching, the book focuses on the difficulties. And after class, students are required to read independently, to understand the main contents of the book, and to complete the relevant reading notes. From the beginning of the second chapter, until the end of the eighth chapter. Requires students on classroom exercises, until the last week, let the students to sum up the experience of the study and share the learning experience.

### **Performance assessment**

To the students' performance assessment, which is in the period and the final results as a comprehensive assessment, The teacher's final evaluation are based on this two exam scores, because the exam score depends on the content of teachers and students play spot, so the two scores all has a certain chance moreover, many of the exams have focused on rote learning, not for the flexible use of knowledge, so cultivate the thinking of students study ability is not enough. If adopt the PAD class teaching mode, it will make the evaluation mechanism more flexible, and focus on the whole process of student learning process. With this model, the teacher makes a more objective and comprehensive evaluation of the whole learning process by taking notes from the students in the discussion and in the classroom.

In more specific terms, the course of "Economic Math" grades consists of two parts, which is usually the two results and final results according to a certain percentage of accounting, reach the students' examination results. Which usually accounted for 60% of the total score, the final score accounted for the total score of 40%. For the usual results of the assessment, mainly to assess the completion of the work of the students, as well as students to participate in the discussion and the number of students to reach the classroom. In the end, the results are closed test. If the students are doing well in their homework, and actively participate in the class discussion, although the final exam results did not meet the passing score, the final results can be passed. This is generally not demanding for their own students, the test pressure is relatively small.

### **Implementation effect**

The implementation of the PAD class teaching mode, students' performance has been changed, specifically in the following areas.

Enhance their Learning initiative. In the traditional teaching mode, the students are only passive acceptance of knowledge, not actively participate in the classroom, the classroom participation level is not very high, so the result of the classroom is very good. If this new model on classroom implementation in the teaching process. It will enable students to become dominant in the classroom, and allows teachers and students get more exchanges in the teaching process, this interactive makes effectiveness become better. The role of teachers and students has also been changed, the students from the passive acceptance of the current class in the classroom, the teacher also from the original communicator to the current guide to change.

Enhance interpersonal skills. Students in the classroom discussion can exercise the students' interpersonal skills, so that students unity and cooperation consciousness. Make the distance

between the members of the group closer.

Increased learning time. Using this new model for students autonomous learning time, students should not only take more time to complete the reading notes, discuss with students the time will increase, but also makes students learn more extension.

### **Matters needing attention of taking PAD class of the Course “Economic Math”**

The use of new models need to pay attention to the following points:

Simplify and clarify the content of the course. Because this new model makes the teachers teaching time shorter, so the teacher will need to teach simplified, make the course content becomes more clear, in this process, to highlight the difficulties and focus, make students better grasp.

Carefully designed teaching links. Teachers should carefully design the teaching link, so as to get better teaching effect. This requires the teachers to understand the content of textbooks, simple explanation the important and difficult contents. It is also a good time to allocate, let students use good time to discuss learning.

Timely feedback. The teachers give feedback to the students PAD class timely ,to be good at summing up, in this process, constantly stimulate students' interest in learning, encourage students to make progress.

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