Research on the Group Division of College Students in Differentiated Teaching of Economics Courses Based on Portraits

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Abstract. Differentiated teaching is an effective way to improve students' learning interest and achievement. This paper first analyzes the factors that affect students' differentiated group portraits in economics teaching from the aspects of learning goals, learning styles, interests, knowledge reserve, learning ability, learning motivation, and characteristics of economics curriculum, then summarizes the basic steps of differentiated student group portraits in economics course learning, and finally discusses the dimensions of differentiated student group portraits. It also points out the problems to be paid attention to in the portrait of differentiated student groups.

Keywords: Portrait; Differentiated teaching; Student group.

1 Introduction

The economics teaching in traditional college courses shows strong singleness and modularity in both class schedule and teaching task requirements, which often puts students into a state of passive management and is not conducive to the cultivation of students' interest in economics learning. Therefore, in terms of course teaching, it is necessary to implement different teaching methods according to the characteristics of students, that is, differentiated teaching. Differentiating instruction means changing the pace, level, or type of instruction based on the needs, styles, or interests of individual learners[1][2].Differentiation is a thoughtful, intentional approach to planning and instruction that provides multiple learning pathways toward clear goals[3].Therefore, it can also be understood that differentiated teaching is targeted and differentiated teaching based on the actual situation, interests and talent differences of students, so that each student can maximize their strengths and avoid their weaknesses and achieve optimal development. Differentiated instruction is also seen as an effective way to meet the needs of all students, providing different content, processes, outcomes and learning

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environments according to individual students' readiness, interests and learning profiles.

Differentiated teaching in economics involves two elements: teacher teaching and student differences. The first element is the teacher's teaching element. Teachers must provide students with economic knowledge instruction slightly above their ability level based on an understanding of students' readiness levels. The second factor is the factor of student differences, which is to grasp the differences among students in abilities, interest in economics and learning styles. Obviously, factors of student differences are the basis for implementing differentiated teaching in economics. Only by truly distinguishing students' differences in abilities, interests and learning styles can differentiated teaching in economics be achieved.

There are already some research results on differentiated instruction.

Robert Schmidt and Winfred Hubert used differentiated teaching in schools in the Alps, and the results showed that students were willing to adopt this new teaching method and achieve higher academic results [4]. The primary reason for developing differentiated teaching is that there are differences in initial knowledge and abilities among students. If unified teaching is adopted, students will repeat learning and students will not be able to keep up with the progress of the class [5]. Students will be more successful and satisfied in school if they are taught in a way that matches their ability levels, interests, and learning profiles [6]. The significance and great value of introducing differentiated teaching based on professional background into classroom teaching is analyzed here [7]. Taking the guidance work of undergraduate graduation projects of engineering majors in local engineering colleges as an example, we explore the implementation methods and teaching design methods of differentiated teaching [8]. The concept of differentiated teaching was applied to the Military Medical University Graduation Exercise and its effects were evaluated [9]. Based on the theme of "Design and Application of Differentiated Teaching from a Big Concept Perspective", a detailed discussion was conducted from four aspects [10]. Differentiated Design of English Teaching Model in Colleges and Universities [11]. The necessity of implementing differentiated teaching management and the main measures of differentiated teaching management [12]. Differentiated teaching ideas and curriculum system design plans for C language programming are analyzed. The implementation form of teaching activities, as well as the methods of course evaluation and course effect analysis are introduced to explore the "student-centered, outcome-oriented" differentiated teaching model [13]. The significance of the implementation of differentiated teaching in pedagogy in colleges and universities is analyzed, the problems faced in teaching are raised, and the strategies of differentiated teaching in pedagogy in colleges and universities are explored [14]. Comprehensive use of three teaching methods: detailed differentiated teaching, "project-based teaching" and case-based teaching! To explore strategies and methods to improve the quality of environmental chemistry teaching [15].

In summary, among the existing research results, a consensus has been reached on the implementation of differentiated teaching in colleges and universities, and scholars have put forward many suggestions on how to implement differentiated teaching. However, there are few research results on how to determine students' differences in ability, interest in economics, and learning styles, and divide students into different groups in

order to implement differentiated economics teaching. This article intends to start from multi-dimensional factors and use the method of student portraits to divide students into groups with different characteristics, laying a foundation for the implementation of differentiated economics teaching.

2 Factors affecting differentiated group portraits of college students

When developing differentiated group portraits of college students in economics teaching, the following factors should be considered:

(1) Goals of studying economics. Students studying economics can have many goals, such as postgraduate entrance examinations, improving grades, interests, etc. Understanding the goals students pursue helps determine plans and teaching methods for differentiated instruction.

(2) Learning style. Different students have different learning styles and preferences. Some students like to listen to lectures, some students like interactive learning, some students like self-study, etc. Understanding whether students prefer listening to lectures or independent learning, whether they are visual, auditory or interactive, will Helps teachers choose appropriate teaching methods and resources based on students' learning styles.

(3) Hobby. Some students are interested in certain economic theories, and some students are interested in economics. Understanding students' interests and hobbies can help provide targeted learning support and resources.

(4) Learning ability. Learning ability includes their way of thinking, ability to analyze and solve problems, awareness of feedback and evaluation, etc. Students will have different learning abilities due to individual differences. Some students have strong learning abilities, while some students have relatively weak learning abilities. In the teaching of economics, different teaching strategies and teaching methods should be used according to students' learning abilities to help each student achieve his or her personal learning goals.

(5) Knowledge reserve. Understand students' knowledge base, including their subject foundation, subject strengths and weaknesses. Adjust teaching content and teaching progress according to students' knowledge reserves, and avoid repetition and overly simple or complex content. At the same time, different teaching goals and difficulties are set according to students' knowledge reserves, and personalized learning tasks and challenges are provided.

(6) Learning motivation. Understand students' learning motivations, including their interests in different content and sources of motivation for learning. Designing interesting and practical teaching content based on students' motivations can stimulate students' learning motivation.

(7) Career planning. Students' career planning includes their expectations for future careers and plans for academic development. Some students hope to study economic theory in depth, while others hope to apply economic knowledge to practical work. Understanding students' career plans can provide personalized guidance and support to

help students achieve their career development goals.

(8) Time management and study planning. Understanding students' time management abilities and study plans, including their time allocation, arrangement and completion of study tasks, can help guide students to plan their time appropriately and improve learning efficiency.

(9) Characteristics of economics curriculum. Each course has its own logic, characteristics, and ways of solving problems. When dividing different learning groups, we must consider the characteristics of abstract economic theory, integration of economic thought and mathematics, historical inheritance, and complex content.

3 Differentiated Student Group Portrait

3.1 The basic steps for differentiating student group portraits

The basic steps for differentiating student group portraits are as follows:

(1) Analyzing student data.

Obtaining student data is the first and most crucial step of student portrait. Teachers can obtain key data such as students' interests, hobbies and behavior characteristics through questionnaire survey, student interviews, file records, student self-evaluation and classmate evaluation, grades and performance, teacher observation and recording, etc. Teachers need to screen, refine and summarize the characteristics of students, integrate and analyze the data of students, so as to better understand the basic information, interests, hobbies, learning motivation, career planning, learning style and other aspects of students.

(2) Profiling student data.

After obtaining student data, teachers need to classify, organize, summarize, count and analyze the data in order to form a more objective and comprehensive student portrait. For different types of student data, tools such as SPSS can be used for data mining and analysis.

(3) Determining student characteristics.

Teachers can establish student portrait models based on student characteristics, including personal characteristics, behavioral characteristics, learning characteristics, etc.

(4) Establishing student portraits.

After determining the characteristics of students, teachers need to integrate and synthesize these characteristics to form a complete student portrait. The student portrait should include basic information, interests, learning characteristics, learning abilities, learning methods and other aspects of students.

(5) Maintaining student portraits.

Student portraits are not static; the characteristics of students in student portraits will also change over time and with changes in the environment. Therefore, teachers need to maintain student portraits on a regular basis to keep them valid and usable.

3.2 The dimensions of differentiated student group profiling

Student portraits should generally have three dimensions based on sequential order: information portrait, behavioral portrait, Individual portrait and group portrait.

(1) Information Portrait. That is, the basic information about the student, which is static data, including growth region, gender, family income, interest, consumption level, etc.

(2) Behavioral Portrait. That is, students' behavior in learning, also known as dynamic data, including students' browsing habits, length of visits, frequency of use, preferences, and campus learning trajectories, etc.

(3) Individual portrait. Give a complete description of each student's information and behavior.

(4) Group portraits. Based on the results of student individual portraits, students with certain learning characteristics when studying economics courses are formed into a group through portraits, and these students with common learning characteristics are labeled, and the labels are aggregated to form a group portrait.

3.3 Issues to be Aware of in Differentiated Student Body Portraits

There are three issues in particular to keep in mind when conducting differentiated student group portraits.

(1) The student group portrait must highlight the economics elements. Economics courses have their own characteristics and logic, and the portrait for differentiated teaching of economics courses must highlight economics elements.

(2) The creation of a student group portrait requires sufficient data. A certain amount of data is required for the portrait to be objective and instructive.

(3) User portraits should avoid being too abstract. The purpose of the student group portrait is to differentiate teaching and learning in economics, and if the final student group portrait is not differentiated, the portrait loses its meaning.

4 Conclusion

Through the study on the division of student groups in differentiated teaching of economics courses in colleges and universities by using the method of portrait, the following conclusions are drawn:

(1) Differentiated teaching has been proved by Chinese and foreign scholars to be a teaching method that is extremely beneficial to students' learning and development. Due to the characteristics of economics courses, it is more suitable to adopt differentiated teaching methods.

(2) In the differentiated teaching of economics courses, the research of using portrait method to divide student groups has just started. The results of this paper on the division of student groups provide a reference for the differentiation teaching of other courses.

(3) The method of grouping portraits proposed in this paper is operable and easy to implement students' portraits. These methods can be used not only in the division of student groups in the differentiated teaching of economics, but also in other portraits.

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