Abstract: With the development of modern information technology, computer programming languages have received more and more attention. More and more universities and majors have opened related programming languages. This paper analyzes the current teaching status of non-computer programming language courses in applied universities, and studies and practices the teaching reform from the aspects of teaching objectives, teaching contents, teaching methods and means, assessment methods. The purpose is to cultivate the era of adapting to big data. Applied Talents.

Keywords: Programming Languages; Java; Teaching Methods; Non-Computer Professionals.

1. INTRODUCTION

With the rapid development of science and technology, human beings have entered the information explosion stage, various types of information are extremely rich, and various kinds of software emerge in endlessly. The demand for application-oriented software development personnel is also increasing. As one of the first batch of three universities in Sichuan province to train students in the overall transformation, our university has been actively developing applied talents and has entered the national education reform queue. Relying on the reform idea of the overall transition of the college to the application-oriented model, each department has set up courses related to programming languages. This article takes one of the programming languages, Java, as an example. Due to the fact that some non-computer majors’ teaching plans for the programming language are less advanced, the teaching of the course has brought a certain degree of difficulty. Therefore, the analysis of the current teaching situation is combined with the non-computer professional. The characteristics of students, from the teaching objectives, teaching content, teaching methods and means, assessment methods and other aspects of teaching reform research and practice.

2. ANALYSIS OF TEACHING SITUATION

2.1 Excessive teaching content

The Java programming and application course is offered for the Department of Transportation of our school. The total number of hours taught is 48 hours. The course is a comprehensive course with a wide range of content and a wide range of topics. The content includes overview, Java language
foundation, object-oriented software development overview, Java language classes, inheritance and polymorphism, JavaApplet, graphical user interface design and implementation, and Java advanced programming and application. Partial knowledge affects the enthusiasm of students to a certain extent.

2.2 Single teaching method
The Java programming and application course teaches a total of 48 hours of study, including 32 hours of theory and 16 hours of experimentation. Theoretical teaching is carried out in multimedia classrooms. Teachers use multimedia courseware and blackboard teaching methods to teach theoretical knowledge in chapters and points. Students passively accept content taught by teachers and lack interaction with teachers. Students in the back row have low participation in the classroom. This traditional theoretical teaching model is difficult to mobilize the students' interest in learning and the enthusiasm of independent learning, and the teaching effect is relatively poor.

The experimental part of the course is arranged in the public computer room. Each student has a computer. The students complete the experiment independently and submit the experimental report according to the experimental topics and experimental procedures arranged by the teacher. Students in the experimental course, the theoretical knowledge will be forgotten part of the operation can only be completed in accordance with the experimental steps given by teachers, can only be copied, can not develop students' independent learning ability and innovation ability.

2.3 Final assessment methods need to be improved
The Java programming and application course is a very practical course. The current final assessment method is a written test. Students are tested for the knowledge of the course. The overall theoretical knowledge of the test paper is more. There will be one or two questions for writing a complete program, but for The practical ability of the students and their ability to comprehensively use the learned knowledge are not enough to make the students go through sudden examinations before the exam and memorize them in order to obtain high scores.

3. TEACHING REFORM
In recent years, more and more colleges and universities are facing the needs of economic development and personnel training. They are actively exploring effective ways and measures to strengthen the application-oriented construction and strive to cultivate high-quality applied talents. As the first batch of schools in Sichuan province to be transformed into applications, our institute has also done a lot of work in the construction of applied courses, and has also achieved certain results.

3.1 Clear teaching objectives and optimize teaching content
The Java programming and application courses are for students in the transportation department. The training objective of the delivery students is to cultivate applied talents for the transportation industry. They will use a lot of management software in their actual work, so this course has been set up. For students in the delivery system, there is no need to master too much theoretical knowledge, focusing on the simple development and practical application of the software. Therefore, the teaching goal of the course is to weaken the theoretical teaching and strengthen practical teaching. We have optimized the content of the teaching, not only learning the basic programming knowledge, but also introduced a comprehensive example to use the combination of the two to better exercise the students' hands-on approach. Practical ability.
3.2 All true case teaching, improve initiative skills
The teaching goal of this course needs to strengthen students' ability to operate. Therefore, all the teaching of this course is completed in the computer room. After the teacher explains a case, the student can immediately follow the instructions and carry out his own innovation on the basis of the case taught by the teacher to achieve better results.
The cases demonstrated by the teachers are all from the actual application. For example, when explaining how to design a login interface of a management system, take the login interface of the educational administration system of our college as an example. The interface students are often used and familiar. In the explanation, some examples that students actually use are used for demonstration.

3.3 Improve teaching resources and guide independent learning
After the introduction of the Super Star Erya platform, the teacher created a Java programming and application course on the platform, and published the syllabus, teaching resources, courseware, experiments, homework, etc. of the course, students can use the computer or mobile phone at any time. View. On the platform, you can also conduct online quizzes at any time, ask questions to teachers in the discussion area, and so on. In addition, teachers also recommend other excellent MOOC platforms for students, such as the Chinese University MOOC Network, Netease Cloud Classroom, etc., to guide students to learn independently after class, and increase students' enthusiasm and participation in the course.

3.4 Reform assessment methods, focusing on teamwork
The assessment method after the reform of this course is to complete the design and implementation of a comprehensive system in groups. Teachers will first provide multiple directions for students to choose, such as the educational management system, 12306 ticketing system, enterprise invoicing system, library management system. The students themselves set up a team of 3-5 people, completed the topic selection under the guidance of the teacher, completed the design and implementation of the system according to the division of labor, and finally submitted a usable system and a database file. Teachers score students according to the completion of each group and the division of labor.
The post-reform assessment method fully exerted the main role of the students, exercised the students' practical ability, and improved the team awareness of the students.

4. CONCLUSION
Java programming and application is a practical and application-oriented course. For non-computer major students, we weaken theoretical teaching and strengthen practical teaching. The core idea of the course teaching reform is to carry out the case-based teaching method in the ordinary teaching process, and to set up the course design with group as the unit in the final assessment to help improve students' Java programming and application ability while cultivating their active thinking and teamwork awareness. After many semesters of exploration and practice, the teaching reform of this course has achieved certain results in our school. Some graduates of the Department of Transportation do a management system. It can be seen that students have mastered the database technology. And can be used skillfully.

REFERENCES
