

Research on VB Curriculum Reform Based on Microlesson Group

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ABSTRACT. *This study analyzes the current teaching situation and existing problems in the course of the "VB Programming" course in the school, puts forward the idea of reforming the teaching method of VB course based on microlesson group, and discusses the methods to improve students 'practical ability. And gives a corresponding solution^[1]. The aim is to construct the digital resource and teaching design model suitable for program design. The application of microcourses is more conducive to the realization of stratified teaching, narrowing the gap between learning effects, and better cultivating students 'autonomous learning habits and innovative consciousness.*

KEYWORDS: *VB, Programming, Microlesson Group, Teaching Reform*

1. Introduction

Current problems with the curriculum. Through the survey, it was found that there are the following problems in the VB programming class:

1) The "VB Programming" course is a computer public basic course offered by the non-computer specialty of Chongqing Institute of Science and Technology. There are nearly 3,000 students in this course each year, and the number is large.

2) At present, traditional teaching methods are still used to teach. There are very few teachers, and traditional teaching has reduced the comprehensiveness, practicality, and lack of interest of the curriculum. Not only is it difficult to cultivate students 'learning interests, but both teaching parties are in dilemma. dilemma;

3) At present, the microcourses used by our school are scattered, and there is no series of complete microcourses, resulting in students almost not seeing the microvideos that have been established;

4) Due to the limited number of school hours, students can only complete exercises similar to the examples, and they will not make a difference and integrate knowledge;

For this reason, the teaching reform of this course is imperative. After many years of teaching and practice, the author's curriculum group has made some attempts to reform the "VB Programming" course from optimizing teaching content, updating teaching methods and teaching methods. Good teaching results have been achieved.

The microcourses accord with the trend of the new curriculum teaching reform carried out by the teachers in undergraduate schools. They can provide conditions for the internalization and consolidation of students' knowledge, better achieve the three-dimensional goal of teaching, and improve the teaching effect of programming.

2. Theoretical basis for research on the subject

2.1 Bulumu's Mastering Learning Theory

The American historian Bloom said: "Almost all people can learn what one can learn in the world as long as they provide appropriate previous and present conditions." The mastery of learning he proposed is an optimistic theory about teaching and learning, which plays a good role in individual teaching practices. The first condition for mastering learning is that there is enough time for learning. The time for learning is affected by three factors: opportunity, time for allowing students to study, and perseverance. That is, the time for students to study voluntarily; Competence inclination is the time it takes to master a certain learning task under normal circumstances. Students' learning opportunities are the same. Perseverance and learning ability are different. Microcourses can provide students with alternative learning resources at different levels, adopt different learning methods, and meet the learning needs of students with different abilities. In microcourse teaching, we can apply a variety of evaluation methods, pay attention to students' emotional characteristics, stimulate students' enthusiasm for learning, allow them to grow up in difficulties, experience the sense of achievement when difficulties are solved, and enhance their self-confidence while training students' perseverance. Finally, it can achieve the goal of reducing learning differences and improving learning efficiency.

2.2 Constructivist learning theory

Constructivist learning theory holds that learning is a process in which learners actively process new information and construct the meaning (or indicative representation) of knowledge based on the original knowledge experience and in a certain social and cultural environment. It pays attention to teaching in the actual teaching situation, taking students as the center, and pays attention to collaborative learning and resource preparation in the teaching process. Constructive learningism emphasizes that students are active constructors of learning, and teachers are organizers, helpers, and promoters. In teaching, teachers should pay attention to the diagnosis and correction of students' ideological errors, and cultivate students' conscious consciousness and multiple cognitive abilities. The learner constructs his understanding of things in his own way. "The student's 'acceptance' of knowledge can

only rely on his own construction to complete it." This requires this study to be student-centered in teaching, provide sufficient teaching resources, design careful teaching links, and make use of situational settings, independent inquiry, and group collaborative learning. We can fully stimulate students' enthusiasm and initiative in learning and effectively realize the active construction of the knowledge we have learned.

3. Research and Analysis of Curriculum Status

According to the current problem, we can see that the first class of the good VB is crucial for students to raise awareness, build learning confidence, and cultivate learning interest. This requires breaking the convention of introducing the VB overview and basic concepts in the first class, but introducing the new ideas of microclasses. The content of the selected microcourses should conform to the course and the students' reality. Strengthen the understanding and mastery of VB grammar through relevant examples^[2], and the focus of the content through experimental methods to consolidate.

We have done the following basic research:

1) After investigation and investigation, it was found that the traditional teaching method is mainly an indoctrination method characterized by one-way output of teachers. The content is relatively boring. In addition, there are many concepts and the content is not very consistent, which often causes students to be unable to concentrate when they are in class. It is only passively accepted. Over time, students think that the course is very profound and can not be expected, resulting in students' boredom of the course and loss of confidence in learning the lesson well.

2) After studying at the experimental center, it was found that there are 13 computer rooms that can support VB teaching and reform. At the same time, all students now have mobile phones. Mobile phones are very convenient to watch microvideos, and hardware is fully guaranteed. The use of microclass-assisted teaching can achieve a good learning effect of "seeing micro-knowledge, small classroom teaching", so that students can deepen their understanding of VB knowledge points in the process of participating in microclass-teaching, and the arrangement of such knowledge points conforms to people's understanding. Law, Easy for students to learn and master.

3) According to understanding the school's degree evaluation rules, it is found that at present, the graduation degree certificate of our school students and the national computer secondary examination have an inevitable connection, which has prompted non-computer students to have a stronger motivation to study VB.

4) Participating in the VB teaching team has begun to learn the design and production of microcourses. The core content of our microlesson group is classroom teaching video(lesson sample fragment), and it also includes teaching design, material courseware, teaching reflection, practice testing, student feedback, teacher comment and other auxiliary teaching resources related to the teaching theme. They jointly

"created" a semi-structured, thematic resource unit application "small environment" with a certain organizational relationship and presentation^[3].

Therefore, the research on the subject assisted by microteaching has a good practical basis and significant implementation significance. The project cases of the curriculum are shown in table 1 below, and the related teaching resources are shown in table 2 below.

Table 1 Microlesson Video Catalog

| Course chapters | File Type |
|-----------------------------------|-----------|
| 1.1 VB Environmental Introduction | Video |
| 1.2 VB Environmental Introduction | Video |
| 1.3 Object | Video |
| 1.4 Form | Video |
| 1.5 Label | Video |
| 1.6 Text Box | Video |
| 1.7 Command Button | Video |
| 1.8 Input Function | Video |
| 1.9 MsgBox Function | Video |
| 1.10 Print Method | Video |
| 1.11 Sequential Structure | Video |
| 1.12 selection Structure | Video |
| 1.13 Select Case Statement | Video |
| 1.14 Circular structure | Video |

Table 2 Supporting courseware, question bank, teaching plan, speech speech

| |
|---|
| Chapter II. Courseware |
| 2.1 VB program design introduction |
| 2.2 Object Oriented Visual Programming Foundation |
| 2.3 VB Programming Foundation |
| 2.4 Basic control structure |
| 2.5 Array |
| 2.6 Process |
| 2.7 User Interface Design |
| 2.8 Data file |
| 2.9 Image Operation |
| 2.10 Database Programming |
| Chapter III. Library of Issues |
| 3.1 Programmatic problems |
| 3.2 Read program questions |
| 3.3 Objective questions |
| Chapter IV. Educational Plans |
| 4.1 Teaching plan |
| Chapter V.Speeches |
| 5.1 Speeches |

4. Methodology of teaching

After the text edit has been completed, the paper is ready for the template. Duplicate the template file by using the Save As command, and use the naming convention prescribed by your conference for the name of your paper. In this newly created file, highlight all of the contents and import your prepared text file. You are now ready to style your paper; use the scroll down window on the left of the MS

Word Formatting toolbar.

4.1 Case teaching method

By combing the knowledge points of VB, VB is divided into 20 or so knowledge points. Each knowledge point is implemented with one case and made into a microlesson, making it easier for students to master the basic knowledge of VB and be able to study independently according to the case., to achieve an anti-three effect. At the same time, according to the VB syllabus, we can comb out the important knowledge points of VB and construct the overall knowledge framework system of the microlesson group. The main knowledge points include the basic knowledge of VB(data types, constants and variables, operators and expressions, and VB functions). VB's three control structures, arrays, processes, user interface design, data files, and graphics operations.

4.2 Experience Summary Method

This method mainly aims at the teaching content design microlesson group. With reference to the actual situation of the students in the course before, according to the students 'theoretical foundation, the microlesson content with appropriate difficulty can be set up, which can not only meet the students' understanding degree, but also improve the students 'hands-on operation ability. The targeted recording of 5-8 minutes of microvideo per article is mainly to highlight the teaching of certain subject knowledge points(such as key points, difficulties, and doubtful content in teaching) in classroom teaching. It is mainly based on examples in books and experiments. The above topics are demonstrated..

4.3 Heuristics

Through teachers in the teaching process according to teaching tasks and objective rules of learning, starting from the students 'reality, adopt a variety of methods, to inspire students' thinking as the core, to mobilize students 'learning initiative and enthusiasm, and promote them to lively learning.

4.4 Discussion

After finishing the microclass, the students will be surrounded by the class or the group to express their opinions and opinions on a certain knowledge point or central question. The teacher will explain the questions put by the students in detail, and at the same time put questions to the students according to certain teaching requirements. Ask the students to answer. And through the form of question and answer to guide students to obtain or consolidate inspection knowledge, teachers and students jointly discuss, inspire each other, and brainstorm to learn^[4].

5. Objectives of the study

(1) According to the curriculum of VB, comb out the important knowledge points of VB and build a general knowledge framework system for microcourses.

(2) Targeted recording of 5-8 minutes of microvideo per article is mainly aimed at highlighting the teaching of certain subject knowledge points (such as key points, difficulties, and doubtful points in teaching) in classroom teaching.

(3) Make a group of microlessons based on recorded microvideos so that students can watch VB videos whenever and wherever they need a mobile phone, so that students can move to learn, make full use of students 'debris time, and make students learn everywhere.

6. Research Innovations

The innovation points of this study are as follows:

(1) Research content innovation

There are many problems in the middle vocational programming curriculum today. Teachers are also actively carrying out curriculum reforms, such as the application of project systems, case laws, and task-driven methods. However, most of them still use traditional teaching methods. The utilization rate of informatization is not high. In this study, it is proposed to carry on the microteaching in the middle vocational program design course, and to infiltrate the informatization into the whole teaching activities, which accords with the characteristics of modern Middle vocational students. Digital teaching resources and new teaching models can not only promote the improvement of classroom teaching efficiency, but also provide help for students 'extra-curricular learning.[5]

(2) Research Tools and Methods Innovation

This study applies microlesson digital resources to teaching. The knowledge capacity of each microlesson is small, which accords with the learning characteristics of middle school students. The microlesson resources based on the network platform provide students with good support for sustainable and individualized learning.

7. Problems

Although this teaching practice, to a large extent, reflects the advantages of microcourses, there are still many shortcomings in practice:

(1) The microteaching environment needs to be improved. The computer room can provide networks. Students have monthly data flow, but there is a lack of a suitable WiFi environment on the entire campus. Mobile devices such as after-school mobile phones and tablets can use microlesson resources but can not be

programmed.

(2) The content and form of microlesson resources need to be improved. Although the microlesson case combines the textbook knowledge with the application in life, it is typical but the quantity and type are not rich enough. Although the content and length of microvideo can be recognized by students, because the video is produced by one person, personal ability is limited and the form is slightly single.

(3) The implementation of the teaching model needs to be strengthened. Most students can follow the rules in teaching, but a few students still need to constantly remind and supervise, so as to affect the overall teaching effect.

8. Future research

With the advent of microage, microlesson has become a hot topic in our educational circles in recent years. More and more first-line teachers use microlesson to implement teaching, and make the development of microlesson more perfect in the continuous summary and reflection. Only by combining the characteristics of students and seriously exploring bold practices can microcourses better serve education^[5] And ... This research has proved its advantages by implementing microteaching in VB courses, but in order to achieve ideal results, it is still necessary to conduct in-depth research from the following points in the future teaching work:

(1) In-depth study of the strategies of supervision of middle school students in microcourse teaching. We will focus on students with insufficient self-control, low autonomy, and students with insufficient learning ability, and explore what teaching activities can effectively enhance students' internal motivation for learning, so that they can also actively participate in learning activities. Effective autonomy and inquiry learning^[6] And ...

(2) Continue to learn the production skills of microlesson resources, continuously improve the quality of microlesson resources, and form a more complete resource system. The times are developing, the educational situation is constantly changing, and teachers must keep pace with the times. There is no better teaching than better. As long as the new teaching model can help improve the teaching effect, it is worth studying and studying. This study will also overcome various difficulties in teaching reform, continue to advance, optimize the teaching model of microcourses in programming teaching, and make programming classroom teaching more effective^[7].

9. Conclusion

Under the course construction with both theoretical and experimental emphasis, students should use experimental AIDS to enhance their practical ability and understanding of theoretical knowledge, and make full use of students' debris time to

make full use of students' learning everywhere. This not only improves the learning performance of VB and the pass rate of VB secondary examinations, further improves the employment of students, reduces the pressure on VB teaching teachers, and relieves the pressure on large-class teaching.

VB supplementary teaching based on microlesson groups can effectively mobilize students' self-learning ability, cultivate students' team awareness, cooperation and communication ability, innovation awareness and innovation ability, and improve students' practical hands-on design ability and comprehensive application ability. In terms of logic analysis and programming, the requirements stipulated in the teaching and examination program have been met.

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