Research on the Teaching Reform of Computer C Language Under the Mode of MOOC

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Abstract

Computer C language is a high-level language, and also the basis for students to learn computer courses. A great deal of knowledge point and practice point have greatly increased the difficulty for students to learn. However, today under the development of network technology, the formation of the mode of MOOC has caused the reform of original education mode to a greater extent, this not only effectively alleviate the difficulties of students in learning C language, but also enhance the teaching efficiency of C language.

Key words: the mode of MOOC; computer; C language; teaching reform

1. INTRODUCTION

With the advent of the Internet era, the original teaching mode has ushered in the teaching mode of MOOC, using the effective combination of the network and the course, to improve students' ability to acquire knowledge and practical ability. In the traditional teaching mode of C language, we must determine the teaching objectives firstly, that is the so-called achievement. But in fact, the so-called achievement cannot represent everything, the actual manipulative ability of students and application to knowledge are far greater than the summary of the achievement.

2. The Characteristics of Computer C Language

Computer C language is also a kind of language, it has some similarities with the natural language that we use in our daily life, in both Chinese and English, there are lexical, syntax and grammar, computer C language as well. But compared with computer language, C language has many characteristics, for example, rich data types, and symbols that cannot be clearly defined, such as ++, --, it also has a powerful and mysterious compiler. In other words, C language is a kind of computer language, which is more difficult to learn, but is very easy to use after learned.

In the process of learning C language, some people are diligent, some people are lazy, impetuous, and some people always do not understand C language, these are the most prone characteristics of students in the process of learning. First of all, it is necessary to understand that the C language is just a language, we can't be confused by VC, BC, MC, TC and other related words, which are integrated development environment, when faced with a seemingly very simple procedure, we often should to analyze it, sometimes the simpler problem is not simpler on the contrary, we cannot ignore the many knowledge points triggered by it, this is the most important. When learning the computer C language, we must learn well the syntax and morphology of the language, because this is the key to learn a language.

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3. Problems in The Course of Computer C Language

3.1 Insufficient Attention

Computer C language is the basic course of computer specialty, which occupies a more important position in its professional courses, so it should arouse students' high attention for learning C language. As one of the high-level languages, C language not only has the characteristics of high-level language, but also has the characteristics of assembly language. C language can work as a design language of work system, writes application program, and also can work as a design language of application program, writes application program that do not rely on computer hardware, the code is clear and has considerable flexibility. For computer C language, which has so many advantages, colleges and universities should enable students to fully understand the importance of learning C language in the process of teaching. In addition, in the previous education, the effect is not good and the efficiency is not high for students to learn computer C language, because colleges and universities do not enable students fully realize the importance of C language.

3.2 Boring Teaching

First of all, in the original education curriculum, teachers mostly explain according to the information in the textbook, but in the education curriculum of C language, the most important is its foundation and students' practical ability, it also can be said that the process of learning is the process of practice, learn and practice at the same time is the foundation to learn well computer language C. And Computer C language needs more knowledge points and practical points, relatively speaking, it is also relatively boring, in the process of learning, many colleges and universities do not carry out the necessary interest cultivation to students, this results in students' interest in the face of C language is poor, so as to affect the effect of students in learning C language and teaching quality of C language course.

At the same time, because the C language covers a large number of knowledge points, in the process of understanding and memory, students need a longer period of time, the effect of the learning mode of rote memorization is minuscule, this leads to a decline in enthusiasm for more students to learn C language. Furthermore, learning C language requires a constant combination of curriculum and practice, so as to enhance the learning effect, to achieve the purpose of learning for practice. However, according to the related survey, at present, in many colleges and universities of our country, the infrastructure of computer is not complete, when faced with C language, students cannot carry out full practical learning. For knowledge points on books, they cannot carry out simulation and verification, this leads to the learning effect of C language cannot be better promoted.

4. The Reform Strategy Carried out by Using The Mode of MOOC

According to the relevant survey of colleges and universities in learning computer C language, in the course there are still a lot of problems about education and the students, all these problems fundamentally affect the quality of teaching, so we should make full use of the advantages of the educational mode of MOOC, to integrate with curriculum. The educational mode of MOOC has obvious scale and openness, in addition, it also can be said that it uses the modern technology to carry on the corresponding processing to the traditional education curriculum, thus reduces the teaching difficulty of C language, correspondingly enhances the learning efficiency of students. Through the practice of the educational mode of MOOC, the teachers have found the advantages of the teaching mode of MOOC to curriculum, thus push the mode of MOOC to a new height. The mode of MOOC mainly emphasizes that the students share the analysis within the course and learning resources to other students or teachers through environment of learning at any time.
provided by the Internet, in the face of different personality needs of learners, to realize the original intention of improving learning efficiency.

4.1 Introduce Video Teaching Method

There is an obvious difference between the video teaching method and the traditional educational mode. First of all, the knowledge on the textbook is just planar, its impact on people is far from the impact of stereo feeling on people. The learning process is also the process of human sensory acceptance, the degree of accepting knowledge by a single sense organ is not as great as the degree of accepting knowledge by all sense organs, in the video teaching method, students' vision, hearing, touch, and multiple sense organs are activated, different from the boring course of knowledge understanding, it greatly improves the students' ability of operation, thinking, communication, and other comprehensive abilities, this will affect the process of understanding and accepting knowledge for students. In the video teaching method, the standard to judge one's study it's not his personal ability, but his performance in the whole study, and the progress achieved in this way. Thus, the introduction of video teaching methods not only improves the learning effect of C language for individuals, but also indirectly affects the overall learning effect.

4.2 Follow The Teaching Principle of Gradual Progress

When carrying out improvement based on traditional education, there is one point that cannot be deviated absolutely, that is the principle of gradual progress in the process of learning, although faced with the great advantages brought about by the education of MOOC, the principle of gradual progress still cannot be broken. The process of learning is the process of receiving and digesting the knowledge for the students, such as eating, no one can be a fat man by taking a bite, fat person are formed by constant intake and digestion. Therefore, the process of learning C language is the same, it should be based on the principle of gradual progress to face huge knowledge points of C language, according to the logic of subject and students' cognitive process to incept knowledge orderly. Making students establish long-term acquired channels systematically with the knowledge of C language, forming a strict system about basic knowledge, basic skills and usage methods of Computer C language, strictly following the principle of gradual progress to carry out the teaching method of MOOC mode.

4.3 Establish Online Platform

The arrival of the era of network technology, not only bring great convenience to the society, but also bring great changes to education system. As everyone knows, as an institution for the dissemination of knowledge, school has an important role of cultivating talents, but for knowledge, it is only the accumulation of predecessors, however, the Internet as a huge information database, the knowledge points and scope of knowledge contained by it is hard to imagine, especially today, Internet spreads all over the world, information resources throughout the country are all uploaded to the Internet. So for the school, it also accordingly increases acquired channels of the knowledge of computer C language, providing more useful value in aspect of students' education. At the same time, using Internet technology to build the educational platform for students and teachers, through the online platform, students can communicate with teachers at anytime and anywhere, this not only solves the problem that some students are difficult to face the teachers, but also play a role in helping students to build up deep emotions with teachers to a greater extent.

5. The Comparison between The Teaching Mode of Traditional Computer C Language and The MOOC Mode

In the educational mode of traditional C language, it gives first place to teachers' classroom teaching, in the process of learning C language, when encountering problems, students can only find solutions from
teachers, compared to MOOC mode, its educational mode is relatively single. However, through the modern technology processing the educational mode of traditional C language to form a new educational mode, by network, it can attract a large number of Internet users, or to say teachers strength. As is known to all, when students choose school, they are simply aimed at four aspects, that is school's environment, school's educational mode, school's geographical position, and teachers strength, which is the most important. But for the Internet, the teachers strength of a school is limited eventually, in the education of MOOC mode, it completely broke the situation of limited teachers strength, teachers across the country are willing to put their own teaching courses on the Internet, this is of great help to the students in the process of learning C language. For teachers, through the MOOC, which is videotaped in the whole process, they can watch the students' learning situation at any time after class, so as to analyze the reasons effectively. Compared with the method of analyzing students' learning ability only through quiz or test, the mode of MOOC has obvious advantages.

6. Analyzing Base on Teaching Mode of MOOC

   Intuitively speaking, the mode of MOOC is a massive open online courses, it has a large scale and openness. First of all, the scale of MOOC. For the number of participants, there is no specific restriction in MOOC, in the same course, even the situation of participants up to 160 thousand can occur, this is unthinkable in the traditional education classroom of C language, there is no site constraints, and no limit to the number of people, this greatly expanded the scope of audiences. Secondly, the openness of MOOC. MOOC does not teach a single course or a single group at all, people from all walks of life all can obtain the required knowledge through the platform, and there is no limit to the time and place, for learners, they just need a networked computer or mobile terminal, then can take the knowledge they need, and they have full freedom in time.

6. 1 Present Situation of MOOC

   The meaning of MOOC is massive open online course, this mode was firstly produced in 2008, put forward by Canadian scholars Dave Cormier and Bryan Alexander, in September of the same year, the first course was formally opened. With the continuous development of science and technology, today, three of the most famous platform of MOOC was born: Udacity、Coursera、edX. Three platforms of MOOC have different pertinence. For example, the platform of edX is mainly based on excellent university resources, to provide high-quality teaching courses for students; the platform of Udacity pays more attention to usability, all education courses are focused on practical applications; the characteristic of the platform of Coursera is that it has the most abundant course type.

6. 2 The Advantage of MOOC

6. 2. 1 Course Selection

   In the traditional education system, it is based on teaching materials, teachers teach diffusible knowledge based on textbooks, they do not take into account the needs of reality and professional update speed. And in the teaching system set up by MOOC, there are completely open and optional online courses, so students can choose independently according to their own situation.

6. 2. 2 The Advantage of High Quality Resource

   In the mode of MOOC, all online courses are delivered through the Internet, in other words, all the people entering the platform can use these courses. So relatively speaking, the probability for network course to arise problems is much small, for the problems arose, it will point out and correct in the first time.
So for the students who are learning C language, the resources they can received are presented after optimizing, so the mode of MOOC has the advantage of high quality.

7. Conclusion

Through the above analysis we can obviously see that, the influence of MOOC on computer C language not only fundamentally solves the problems existing in the traditional teaching, but also promotes the development of education system by using science and technology. When faced with complex and tedious computer C language, whether teachers or students, the mode of MOOC can provide great help for them, consolidated information resources, optimized teaching plan, these advantages have a direct impact on students' learning efficiency to C language, so the mode of MOOC is of great significance to the teaching reform of computer C language.

Reference