# Research on the Application of Micro-course in Teaching Basic Computer in Colleges and Universities

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**Absrtact:** The traditional teaching methods in the teaching process of college computer basic classroom teaching present multiple drawbacks, including boredom in the classroom, negative psychology of weariness of learning, and reduced learning efficiency among students. The emergence of micro-course as a new teaching method may solve this problem. The main contents of micro-course teaching include teaching image, courseware, examination and so on. Through diversified micro-course teaching, students can stimulate students' enthusiasm for basic computer courses. The teaching quality and efficiency of basic computer courses in universities should be improved so that more students can master basic computer skills. In view of this, this paper mainly analyzes the application of micro-courses in basic computer teaching in universities.

Nowadays, the modern teaching model has become more reliant on the innovation and modern technology. The teaching of basic computer course in higher vocational education becomes relatable to the use of more innovative technologies vis-à-vis the exponential growth of modern technologies. Using micro-course to carry out teaching can make up for the limitations of traditional teaching since this method can stimulate students' interest in learning to the greatest extent and enhance students' learning effect. To carry out basic computer course teaching using micro-course, it is necessary to learn how to make micro course, arrange classroom teaching reasonably around micro-course, innovate continuously while summing up traditional teaching, and strengthen the teaching effect of basic computer course.

## 1 Concept of Micro-Course

1.1 The concept of micro-course refers to a kind of structured digital resource, which uses modern information technology to present the learning content in pieces and transmit the material in an extended way according to the cognitive law. At present, in the process of applying micro-course, higher vocational schools mainly organize the classroom teaching content, design the corresponding teaching content according to the goals of teaching, and reflect on the teaching through courseware material. Practice test and student feedback can help integrate teaching resources and achieve the ideal teaching effect. In addition, it is necessary to break through each knowledge point one by one, find the fusion point between the teaching contents, and form a themed video on the basis of the integration of the existing small environment during micro-course teaching. It covers the teaching contents that need to be explained, so that the teaching resources can be optimized and integrated in the process of use, and the enthusiasm and initiative of students can be improved. There is an obvious difference between micro-course and traditional teaching resources, i.e. the micro-course is more abundant and diverse which can make up for the shortcomings of the traditional teaching and enable more innovative teaching.

1.2 Compared with traditional teaching, the characteristics of micro-course are more prominent and obvious, such as short and simplistic content, real situation,

prominent subject and convenience for learning. In terms of content, the production of micro-course video requires a certain skill. Teachers need to integrate different knowledge points and find the integration and connectivity between each knowledge point according to their abilities, so that knowledge points can be common. Combined with the needs of students, constant innovation of the production form can help students master the learning content timely and quickly, enable comprehensive learning on the basis of in-depth understanding, and enhance the pertinence and rationality of the learning content. In addition, in order to attract the interest of students, teachers should have macro perspective in order to deeply understand the knowledge points, constantly refine and extend, find the most appropriate way to effectively convey the knowledge points, and avoid classroom boredom in the process of learning.

## 2 The Basic Computer Course is an Applied Basic Course in Colleges and Universities

Mastering the basic computer skills is necessary for everyone in the future. Therefore, more people start to value its teaching quality. However, the computer literacy among students is still relatively lacking, which is attributed to a few reasons: (1) The school hours are short and thus, the practical period is shorter. In many higher vocational colleges, the basic computer course takes only 64 hours or less. After the teacher has finished lecturing, the operation time left to the students is often less than half of the total study time, and the practice time becomes lesser. As a result, the students are not proficient in computer skills. (2) Students have different foundations and different levels of comprehension. Students who come from different regions have different opportunities to master computer skills before going to college. The students originated from the remote and rural areas are not even familiar with keyboards, which to a certain extent affects the learning progress in the classroom. As a result, the students with poor comprehension could not catch up with the teaching progress. (3) The teaching team has insufficient experience and the teaching content is unclear. (4) Some of the practical equipment is too old. The quality of class is seriously affected. In view of this, we should seek a learning platform to make up for these shortcomings.

## 3 The Application of Micro-Courses in Ba-
sic Computer Teaching in Universities

### 3.1 The Application of Micro-Courses Involves Previewing Micro-Courses and Training Students to Actively Learn the Basic Computer Courses

Everytime when the teacher is teaching, he/she will set aside a lot of autonomous learning time for the students, so when the teacher combines the micro-course with the computer teaching, he/she can reserve some questions for the students before the class. The teacher may ask the students to preview the textbook and the questions provided. Micro-course mainly uses video clips and pictures in teaching. The teacher will share the teaching materials with students on the network, so that students can also revise after the lesson, in order to promote knowledge absorption. If a student encounters problems in the process of previewing, he/she can ask the teacher for help in class. The teacher can cultivate active learning among students. The students may have fun while performing autonomous learning of the computer course.

### 3.2 Using Micro-Course Teaching Method to Improve Learning Efficiency

In the computer course classroom that transitions from traditional teaching method to the micro-course teaching method, the teacher can show the key points and difficulties in the basic computer knowledge through video or image, in order to attract students' attention and improve learning efficiency. Using micro-courses to teach basic computer knowledge can create an immersive environment for the students. For example, teachers can simulate an enterprise ambience is the classroom, and then assign to the students some video tasks to complete according to the requirements of the enterprise. The teacher first uses short video clips to explain to the students the steps of making the videos as required needed by the enterprise, and then guides the students to complete the assignment in a step-by-step manner. Finally, the students should attempt to operate by themselves. In this way, students not only get the first-hand work experience, but also learn a lot of basic computer skills. It fundamentally improves the learning efficiency of the basic computer skills in colleges and universities.

### 3.3 The Learning Ability and the Degree of Comprehension of Classroom Knowledge of

**Each Student are Different**

The teacher can share the micro-course teaching materials with the students, so that the students can spend their own time for revision. This would help consolidate knowledge and at the same time, strengthen their own business acumen and improve their professional skills.

Under the traditional teaching mode that is more inclined to one-way teaching style, the learning process becomes boring, and the students are prone to fatigue, which leads to a certain degree of resistance. Furthermore, the learning enthusiasm and learning effect will be reduced in classrooms that adopt one-way teaching style, and the pre-defined teaching goals become more difficult to be realized. The use of micro-course for teaching poses the advantage of convenience. Students can learn the computer course anytime and anywhere. The students can choose to study and complete the micro-course learning under the conditions that are most conducive for learning, so as to achieve the ideal learning effect. Micro-class learning covers many aspects, such as learning time, learning state, after-class evaluation and so on, which are interlinked and can combine the needs of students with the final learning situation, and effectively coordinate the relationship between the two. This approach would enhance learning satisfaction and stimulate students' interest in basic computer courses. For example, in the process of learning how to use Microsoft Word, it is necessary to subdivide the relevant knowledge such as document format, table setting, overall typesetting and so on. These knowledge domains will then be split into smaller knowledge points for clearer explanation, in order to improve comprehension and understanding through step-by-step learning. In addition, through the use of micro-course method, the learning time inside and outside the classroom can be adjusted, depending on the students. For example, the basic computer lesson can be divided into three parts: pre-class guidance mode, in-class discussion mode and after-class practice mode. If the lesson is relatively special, the teaching time can be extended to ensure the effective communication of learning content. In the process of teaching, the key points can be taught repeatedly so that students can fully master. At the same time, combining the characteristics of the previous traditional teaching mode, current teaching mode can be innovated by effectively combining the online and offline learning methods.

In a nutshell, since the basic computer course is a com-pulsory course for college students after entering colleges and universities, the traditional teaching method for basic computer needs to be replaced with better methods to maximize learning outcomes, in conjunction with the contemporary development of modern information technology. The exploration of micro-course in teaching basic computer course as part of the teaching reform will definitely improve the learning outcomes.

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