# Innovative Thinking of Computer Basic Course Based on Marxist Practice Method

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**Keywords:** Marxism, Practice method, Fundamentals of computer

**Abstract:** As an important component of Marxist philosophy, the view of practice is the foundation and premise of Marxist theory. The understanding of Marxist theory requires a deep understanding of the Marxist view of practice and a further grasp of its scientific connotation. At the same time, the research on Marxist view of practice is helpful to promote the construction and development of China's socialist modernization. Computer Basis is a public compulsory course for all non-computer majors in colleges and universities. Computer technology is updated quickly and has strong practicality. How to innovate constantly in teaching to meet the needs of compound talents in the information age is a problem that teachers should think about. Based on the innovation of basic computer courses, this article explores the application of Marxist practice method in computer teaching. Therefore, it is necessary to objectively understand the Marxist view of practice and grasp its connotation, so as to actively explore its time significance and enlightenment, enhance the sense of innovation, realize the close connection between theory and practice, and create a good social environment.

## 1. Introduction

Practice is the basis for the existence and development of society, as well as the basis for the occurrence and development of cognition [1]. Finding and asking questions in practice, making a theoretical overview and summary of practical experience, and testing theories and developing theories through practice are the basic principles that social science research should follow [2]. With the widespread popularization of information technology education in primary and secondary schools and the whole society, basic computer education in colleges and universities urgently needs to be reformed in terms of educational concepts, teaching content, textbook construction, and teaching methods [3]. The exploration of Marxist concept of practice has important practical value, which is conducive to promoting the development of socialism with Chinese characteristics, further realizing the Chinese dream and promoting the harmonious development of society. At the same time, it should be combined with China's reality, seize the characteristics of the development of the times, so as to constantly improve their own understanding [4]. Computer education is divided into three levels, the first level is the basis of computer culture. The second level is the basis of computer technology. The third level is the basis of computer application. Basic computer teaching, not only need to cultivate students' basic computer ability, cultivate their innovative consciousness, independent thinking ability and related professionalism are very important [5]. In a word, the innovation of computer basic teaching mode must pay attention to the integration of core literacy. Therefore, it is necessary to objectively understand the Marxist view of practice and grasp its connotation, so as to actively explore its significance and enlightenment, enhance the sense of innovation, realize the close connection between theory and practice, and create a good social environment [6].

## 2. Marxist Practice-Based Research Methods

### 2.1 Marxism and Computer Fundamentals

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The research method of Marxism based on practice includes the following meanings: social life is practical in essence. The need of practice is the starting point of theoretical research. We should have a strong sense of problems. Theoretical summary of practical experience. Investigation is the basic link. Test and develop theory in practice. At present, computer basic course has become a public compulsory course in Colleges and universities [7]. 计 Computer basic teaching is as basic, popular and practical as mathematics and foreign languages in undergraduate education. Its teaching content mainly involves the basic and applicable concepts, technologies and applications of computers. It plays a direct and far-reaching role in cultivating students' computer knowledge, ability and information quality [8]. The cultivation of college students' information technology literacy and computer application ability is an important part of quality education, and computer foundation is an indispensable part of the undergraduate training plan [9].

### 2.2 The Era Significance of Markism's Practical View

With the popularization and application of computer technology, great changes have taken place in the situation around basic computer education, mainly in the following aspects: the in-depth development of social informatization and the acceleration of informatization process in all walks of life. The computer level has become a prominent symbol to measure the professional quality and ability of college students, and the requirements of employers for the computer ability of college graduates are increasing. The starting point of freshmen's computer knowledge level will increase year by year with the popularization of information technology education in primary and secondary schools. Computer application technology is more closely integrated with professional teaching and scientific research, and the requirements for computer application ability of each major are more specific and strict. The statistical analysis of computer course content is shown in Figure 1.

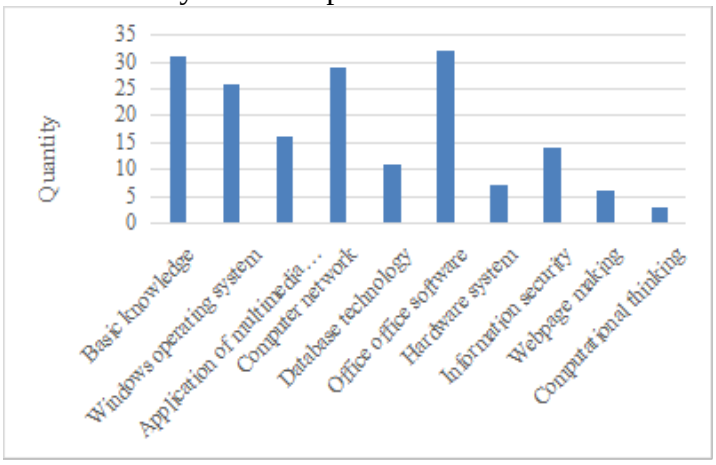


Fig.1 Statistical Analysis of Course Content

The Marxist view of practice embodies the characteristics of advancing with the times and has important times significance. First of all, from a national perspective. In the process of realizing the Chinese dream, Marxist practice plays an important ideological guiding role. On the road of my country's continued strength, the Communist Party of China has followed the Marxist concept of practice and closely integrated with China's actual national conditions, thus exploring the path of socialism with Chinese characteristics. This is not only a kind of belief and persistence, but also a new discovery after bold attempts and hard work. Secondly, from the social perspective. The construction of ecological civilization in China has been widely valued and developed. At the same time, it needs to be combined with the Marxist concept of practice, which helps to improve people's ideological understanding and coordinate the relationship between man and society as well as nature. Finally, from a personal perspective. Everyone is a member of the society and will go through different experiences and tests of the society. As the main body of practice, human beings need to adhere to the Marxist concept of practice to constantly improve their innovation consciousness and technical ability.

## 3. Innovative Thinking of Computer Basic Course of Marxist Practical Method

### 3.1 Application of Practice Method in Basic Computer Course

The research method based on practice is a kind of Marxist methodology, and the viewpoint of practice is the primary and basic viewpoint of Marxist theoretical system. In the teaching of basic computer courses in secondary vocational schools, making full use of practical methods can not only meet the characteristics of basic computer courses in vocational schools, but also fully meet the needs of vocational students for mastering skills. Apply the practical method to the teaching of basic computer courses: setting up real situational problems, discovering problems, discussing and collecting materials, solving problems, verifying theories, and summarizing practice. In the field of Marxist practice, man and nature are among the categories of relations. In the process of human practice, it is precisely because of the objective existence of the natural world that humans have certain material conditions. On this basis, through the use and transformation of nature, human beings get the corresponding survival and development. In fact, the transformation of nature is also the external reflection of the practice subject, and affects the natural world.

### 3.2 Innovative Thinking of Computer Basic Teaching

The computer courses offered in elementary and middle schools undoubtedly played a big role in promoting the popularization of computer education. However, because the college entrance examination did not test the subjects of computer ability, the computer skills of high school students were polarized. At present, computer education in colleges and universities should further integrate professional teaching reform and development, and continue to strengthen computer teaching. Therefore, before the development of specific learning activities, it is necessary for teachers to determine the basic teaching objectives of computer through the analysis of textbooks and the requirements of the curriculum syllabus. This is also the fundamental guarantee for the smooth development of learning activities in the future. As shown in Table 1, the teaching objectives of the cognitive field of the basic computer course.

Table 1 Teaching Goals In the Cognitive Field of Computer Basic Courses

| Knowledge points | Target level | Specific behavior description |
|---|---|---|
| The development, function and composition of computer networks | Know | Able to state the development, function and composition of computer networks |
| Computer network architecture | Comprehend | Able to explain OSI and TCP/IP reference models and explain the functions of each layer |
| Network Topology | Application | Able to draw the topological structure diagram of each network and explain the characteristics |
| Basic Concepts of Information System Security | Know | Be able to recall the basic concepts of information system security |
| Information security technical means | Application | Can give examples to illustrate the function and significance of each technical means |
| Network moral construction | Evaluation | Be able to make an objective evaluation of the network moral anomie behavior presented in the learning resources |
| Information retrieval method | Application | Ability to search for resources using advanced information retrieval methods |

So, in the new situation, which aspects should we improve and improve the level of basic computer education? Select teaching materials, enrich the teaching content, keep pace with the times, guide students to take the initiative to learn by practical teaching, and use multimedia technology and network technology to reflect the all-round teaching and computer application follow-up curriculum. In the reform of university computer course, we must take students as the main body and teachers as the leading to carry out interactive teaching. Combined with the specific situation of the students in our school, this paper puts forward the curriculum reform scheme suitable for our students. The design process of computer basic course teaching mode is shown in the figure below.

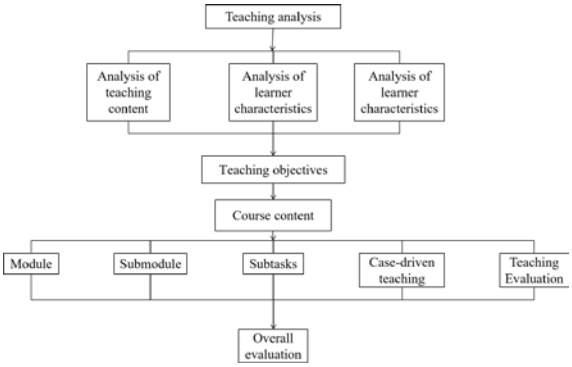


Fig.2 Design Process of Teaching Mode

Basic computer teaching, theoretical teaching and practical guidance should be equally important, so it is necessary to adhere to the mutual teaching of theory and practice in teaching, so that theory and practice can complement each other and improve students' comprehensive ability. Encourage students to find relevant data and solve related problems in practice, and then extend their knowledge to explore different ways to solve problems, so as to consolidate and innovate their theoretical knowledge, which is an important guarantee for the quality of basic computer teaching.

## 4. Conclusions

Facing the new situation of higher education, everyone is actively thinking and practicing the reform of basic computer education in colleges and universities. In summary, basic computer teaching needs to focus on cultivating students' thinking ability. And we must adopt a diversified teaching model to improve students' inquiry ability, and we must pay attention to the combination of theory and practice to strengthen students' innovative ability. Finally, the cultivation of students' core literacy can not be completed in a short period of time, which requires colleges and universities to attach importance to it and invest enough teaching resources to improve the teaching quality. Applying Marxist practice method at the beginning of teaching and applying it to all aspects of teaching can avoid the disconnection between theory and practice, and cultivate students' ability to find problems, think about problems, solve problems and verify theories, as well as their character of seeking truth and being pragmatic.

## Acknowledgement

The general project of philosophy and social science research in Jiangsu Universities ”Marxist P hilosophy Research Based on cognitive computer basic teaching method”(No.:2020SJA1614).

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