

Research on Reform of Computer Fundamental Course Based on "Multiple" Teaching Resources Construction

Yan Meng^{1, a}

Changchun Guanghua University, NO.3555, Wuhan Road, Changchun Economic Development Zone, Jilin Prov, China

maomao192210@163.com

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Abstract: In the process of social improvement, university teaching must integrate new elements in the process of reform, and actively cultivate the ability of college students to study computer and multimedia courseware and network resources. Based on the theory of multiple intelligences, this paper explores the application and practice of the theory of multiple intelligences in the teaching of computer culture based on specific subjects. This paper puts forward the "multi-dimensional" development framework of teaching resources under the trend of "pluralism, modularization, integration and networking" of the computer basic courses in colleges and universities, and constructs the teaching resources of "pluralism" as the "three-level" Core, to promote teachers rely on three-dimensional teaching resources to carry out mixed teaching activities, teaching methods, guide students to actively think and be happy to practice, and ultimately the application of ability and information literacy.

Theoretical Introduction of Multi-Intelligence

Multivariate intelligence is the ability of an individual to solve the real problems he encounters or to produce and create effective products under the values of a social and cultural environment, a definition that emphasizes the multicultural nature of his theory. Each type of intelligence represents a unique mode of thinking that is different from the other, but coexist, complement each other, and operate together. Multiple intelligences theory can more accurately describe and evaluate the face of human ability, and is an open concept.

Teaching is a systematic process in which each component plays a key role in successful learning. Instructional design is a kind of planning process and operation procedure to analyze the problems and needs in teaching, to determine their teaching strategies, teaching methods and teaching steps, and to evaluate the teaching results. Teaching design is no longer a simple design to be implemented after the problem, but learning in a specific context, in the interactive development process of evolution. The theoretical basis of instructional design is very broad, including systems science theory, learning theory, teaching theory, education communication theory^[1].

The application of multiple intelligences teaching theory in universities is mainly combined with specific subjects, such as the application of multiple intelligences theory in college English teaching design, multiple intelligences theory and so on. Multi - intelligence teaching theory has demonstrated its vitality, especially the multiple intelligence teaching theory and course reform practice research of infinite broad space. College teaching must be in the process of reform into the new elements, and actively cultivate multimedia courseware learning ability and network resource utilization ability. On this basis, students make full use of information to carry out autonomous learning, improve their use of information technology analysis and problem solving capabilities.

Development Framework of Multiple Teaching Resources

With the deepening of computer basic course reform, the construction of teaching resources has become one of the bottlenecks restricting the reform of the course. There are many problems in the course of course reform, such as the development of computer basic course, in order to further adapt to the development trend of computer basic course teaching "diversification, modularization,

integration and networking", the development of computer basic course teaching resources should follow the following "multiple" development framework ^[2]. Fig.1 shows development framework of multiple teaching resources.

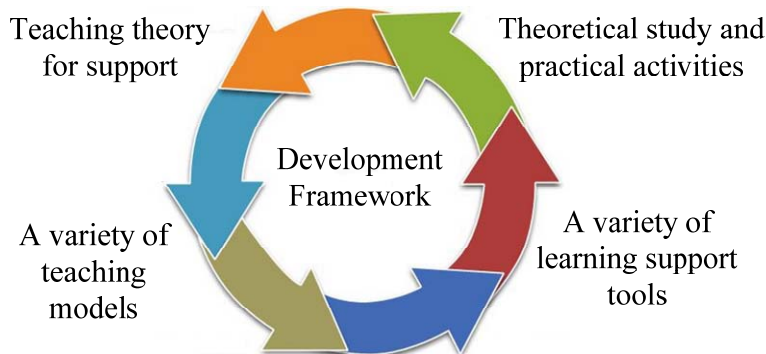


Fig.1.The development framework of multiple teaching resources

Computer-based course teaching reform has achieved a variety of teaching methods, relying on learning resources, inquiry learning, autonomous learning and collaborative learning and other learning methods have been widely used in computer basic course teaching process, as much as possible to adapt to student personality and learning Style differences, for each student to provide suitable learning materials, penetration optimization of autonomous learning methods and collaborative learning, so that teachers and students can use the teaching resources to carry out various forms of teaching and learning activities ^[3].

With the deep integration of information technology and teaching process, information technology provides a good supporting environment for computer basic course reform. In the process of teaching resource development, modern educational technology should be used to construct a flexible, open and shared supportive environment, including teacher classroom demonstration teaching tools, student self-learning support tools, student collaborative learning support tools, collaborative teaching and research support tools. We adopt the theory of engineering education to design theoretical study and practical activities using "Conceive - Design - Implement - Operate". In the activity of unit learning, we should consider the coordination between the textbook and experiment teaching material, and make the knowledge transfer and ability cultivation integrated into the teaching process as far as possible. We should change the original theoretical knowledge transfer and practical exercise Training of the division, block the training process.

Reform of Computer Basic Course Teaching Mode

In the context of the construction of multiple teaching resources, computer basic course teaching resources should be based on different professional and level of teaching content to develop different forms of teaching practice mode, and then improve student interest and enthusiasm for learning to improve students enthusiasm, In addition to the need to make full use of existing teaching resources, and ultimately achieve the desired teaching results, excellent completion of teaching tasks.

Autonomous learning mode, computer basic course teaching process, because the differences in computer literacy students, leading to traditional teaching methods there are some shortcomings, can not guarantee the full utilization of teaching resources. Therefore, in the process of computer basic course teaching can take a new teaching method, namely teacher guidance and student self-learning organic combination. It is better to adopt the inquiry teaching method to the content of the program language type for the computer basic course teaching in the non-computer specialty of colleges and universities. In the actual teaching activities, in order to enable students to understand the true value of knowledge, we should explore as the main way to ensure that students in the practical problem-solving process of computer skills to master, improve self Practical ability ^[4]. Fig.2 shows reform of computer basic course teaching mode.

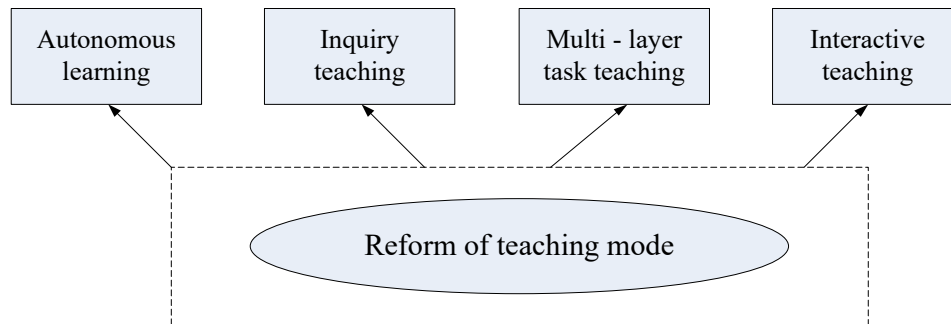


Fig.2. Reform of computer basic course teaching mode

In detail, the way the course is divided into two main lines, one is prepared by teachers in advance of the demonstration project, which mainly describes the content is the specific development process and knowledge points, and the second is through the experimental teaching students from the main way to complete the task of the project content. Two-level teaching model allows different levels of students can learn to enhance the personal computer literacy. The use of interactive classroom teaching methods to stimulate students' interest in learning with the continuous development of computer technology and network technology, modern education technology is widely used in teaching. "Interactive teaching" is a kind of teaching activity under the condition of modern education technology, through certain situations, using certain techniques and methods, teachers and students communicate with each other, interact and teach each other. The focus of the course is not to make the students learn the preparation of the program or the use of a tool, but to make it effective to build computing thinking, make full use of computer language to solve professional problems.

Teaching Reform Construction Main Content

With the deep integration of information technology and teaching process, information technology provides a good supporting environment for the reform of computer basic course. Teaching reform has realized the diversification of teaching methods, relying on teaching resources of inquiry learning, independent learning and collaborative learning and other learning methods. The teaching resources of computer basic course should also be diversified, so as to adapt to the difference of students' individuality and learning style, provide suitable learning material for each student, and enable teachers and students to use various teaching resources to carry out various teaching and learning activities ^[5].

Combined with the characteristics of computer public courses and the characteristics of school running, we put forward the "three-level" course system, course reform model. Each level consists of a number of doors for the whole school compulsory or elective components, each level has its basic teaching content and objectives, to form a complete and independent computer public course teaching system. Fig.3 shows three levels course system.

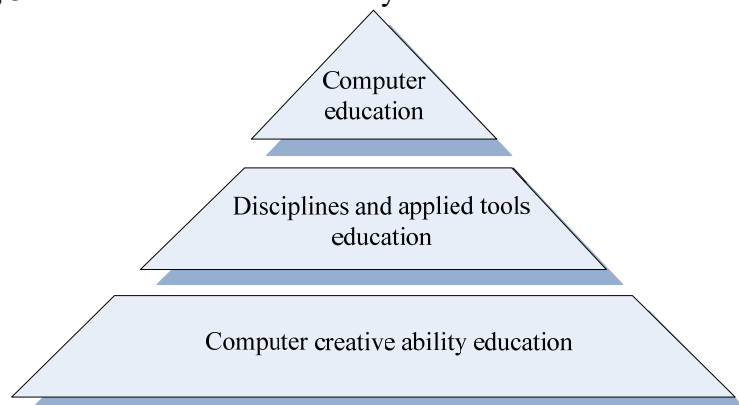


Fig.3. Three levels course system

Relying on the "multi-dimensional" development framework of inter-school construction course teaching resources to a variety of advanced teaching theory as a support to support a variety of teaching models, providing a variety of learning support tools, teaching resources were three-dimensional, the province's outstanding teaching organization Rely on the framework of the reform team to develop three - dimensional teaching resources. Three-dimensional display of teaching resources is not reflected in a variety of simple media stuffing, but should be teaching and learning for a set of overall solutions for teaching and learning to provide a variety of ways and means. Therefore, based on the strong practical, comprehensive, creative, tool-based and epochal characteristics of the computer basic course, the three-dimensional teaching resources of the computer basic course should be "paper-assisted learning CD- Experimental platform "four in one presentation.

Conclusions

The teaching of basic computer courses in universities has been developing in the trend of "diversification, modularization, integration and networking", and new demands have been put forward on the construction of teaching resources. In order to cooperate with the university computer basic course reform, this text has proposed the university computer foundation course "the multivariate" teaching resources development frame, and under this frame support uses the teacher community way constructs, shares the teaching resources. Encourage students to use information means active learning, self-learning, enhance the use of information technology to solve problem-solving ability. We need to build a shared way to complete the construction of excellent computer basic course, teaching resources, and to carry out various forms of teaching reform. Finally we realize the sharing of excellent teaching resources and teaching ideas, and improve the teaching level of basic computer courses in universities as a whole.

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