Research on the Practice Teaching Methodology and the Applications

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Abstract. With the rapid advances of computer and information technology, the education reform for that majored students are urgently needed. In this paper, we conduct research on the practice teaching methodology and the applications on the information and computer majored practical universities. Practice teaching is an important link in training high quality innovation talents. In a market economy under the new situation, should be based on integration of practice teaching resources, build scientific practice teaching system and innovative practice teaching methods, strengthening practice teaching management this basic train of thought to increase practice teaching work. With the strengthening of the improvement of teaching quality and teaching effect and the cultivation of high-quality talent does not only depend on theory teaching can achieve, they also inseparable from the equally important practice teaching with theory teaching. Therefore, we analyze the characteristics of the information and computer major to combine it with practical education mode to form the novel paradigm.

Introduction

Teaching reform is the revolution of teaching thought that must adhere to the principle of practical style while we must change education idea, education idea in, on the basis of the combination of ideal and reality scientifically. To arise the teachers' teaching enthusiasm as well as to create a reasonable and effective incentive policy, in the formulation of school management system on to in line with the spirit of "people-oriented", to provide policy support to the educational reform, editing the teaching material, encourage teachers to encourage the construction of excellent courses, establish incentive mechanism to provide the related dynamic support for the teaching reform. The school shall establish appropriate incentive mechanism, and reduce teachers' work and psychological pressure. Improve the system of assessment and rewards and punishment is effective to encourage teachers into educational reform, actively participate in the educational reform and encourage teachers to learn to study, support the teacher complete transformation from passive to active role in the educational reform [1-2].

According to the literature survey, the primary challenges for the contemporary education reform can be roughly summarized as follows. (1) Weakening appraisal main body of the right to know. At present, some universities in China to review the one-sided emphasis on the students' participation in teaching activities and evaluation activities of completion, thus ignoring the evaluation of teaching activities is the subjective initiative of students conscious, purposeful activities this fundamental, this can make the main body of evaluation activities in the absence of a comprehensive understanding of the activity, in the mid-term or final a certain period of time is required to participate in the evaluation. (2) The evaluation results feedback lag. With many of the colleges and universities in the process of concrete operation not good feedback this important link, the feedback time is too simple and abstract, feedback methods is not appropriate that make general appraisal activity can't play well and diagnosis function of rewards and punishments default it is difficult to achieve the ideal effect. (3) Appraisal management does not reach the designated position. Scientific and reasonable evaluation of teaching management is the basic requirement of appraisal work smoothly and the safeguard, about evaluation of the success or failure of teaching work. Assessment work of the management of departments must complete the assessment process of comprehensive monitoring and formulate work rules to ensure the smooth completion of the evaluation work [3].
In this paper, we conduct research on the practice teaching methodology and the applications on information and computer majored practical universities. As the stage of the popularization of higher education from primary elite to develop steadily, the diversity of talents training pattern has become increasingly apparent, will the talents training goal of applied undergraduate talents in school’s main become the common choice of more and more common universities and colleges of undergraduate course. But at theoretical level of applied undergraduate talents and concept of nature, characteristics, such as research and is still not well understood, even exist various definition of chaos phenomenon, be badly in need of higher education from conception and dual perspective of historical comparison to deepen the research "applied undergraduate talents" itself. In the later sections, we will analyze the issues in detail and the Fig. 1 shows the characteristics of the practice teaching methodology.

The Proposed Methodology

The Features of Practical Universities. In the adjustment of the industrial structure along with the social economy and technology development speed, and continue to develop in the direction of core integration, improvement of the students learning ability, general degree level of ascension are puts forward new requirements and challenges and only pay attention to operation ability and the single technology, ignore the theoretical basis of higher vocational college and theoretical knowledge only ignore hands-on ability of traditional undergraduate colleges and universities cannot meet the needs of the development of science and technology, therefore, the cultivation of theoretical knowledge and practical skills of interdisciplinary talents with applied undergraduate will become one of important types of university and become an important subsystem of higher education system, and both from the perspective of theory and practice of higher education development at home and abroad. Therefore, the construction of applied undergraduate has important strategic significance [4-5].

Personnel training mode is to point to in certain education theory and education under the guidance of thought, on the basis of training target specifications and requirements, to build the corresponding course system and teaching content, and has taken related education teaching management, education teaching method and means, etc. Under the practical universities’ background, the training pattern can be organized as following categories. (1) University-enterprise cooperation type personnel training mode. The personnel training mode is relatively advocate at present. Through university-enterprise cooperation, can be directly to the enterprise, according to company specifications and requirements for personnel training to cultivate the students, but also is very good to solve the problem of difficult student internship and employment difficult. (2) Points the direction of three-dimensional multi-level talent cultivation mode. Point the direction of three-dimensional multi-level talent cultivation model is fully embody the people-oriented education, adhere to the principle of fully that is very suitable for applied undergraduate personnel training mode of school education teaching. (3) Build the pragmatic innovation, with high ethics, to master and apply the modern education technology and the advanced
education teaching thought and method, carry out applied scientific research and development of the teaching staff is the key to realize the talents training goal of applied undergraduate education. (4) The talents training goal of applied undergraduate should be based on professional requirements to build more than ten different kinds of the practice teaching link of complete practical teaching system, to achieve higher applied talents training of characteristic, and then through strengthening the practice teaching system of the practice teaching quality.

**The Features of the Computer Major.** With the development of national information industry and the higher demand of computer talents, the higher vocational and technical education of computer professional teaching faces severe test, the existing computer professional teaching system, lack of market adaptability, lack of professional post. The traditional teaching mode has not met the basic requirements of the current society of the vocational education as teaching reform is imperative and modular teaching can in the shortest possible time, and the most effective way to enable students to master certain skills. Higher vocational education has become the current our country one of universal education mode. Carry out modular teaching, more outstanding skills training is the core of vocational and technical education is an important link in training students' professional skills [6].

![Figure 2. The Keyword of the Information and Computer Major](image)

As the most important part, the course book is the primary thing for considering, while this tool should follow the listed guideline according to the keywords reflected in the Fig. 2.

- Computer science and related technology have strong theoretical, practical, and has the basic characteristics of the combination of the basic science and engineering, decided the computer professional teaching materials should be comprehensive, namely primary textbook written in computer science, on the basis of logic and structure of the system, but also leave appropriate attention and other subjects such as mathematics, physics and the cohesion between control and electronic engineering discipline.

- Creating learning situation, guide the student use of teaching materials for efficient learning. In the teaching material in addition to express the learning objectives, the key and difficult, the more important is to give the teaching material arrangement value idea, the teaching material content contains with the highlight description [7].

- Design of computer science and technology related case scenarios and questions. Stimulate student interest in basic learning, guide and inspire students through observation, experiment, reading, thinking, discussion and other activities for cases solutions are put forward.

- Teaching material organization is not the simple accumulation of basic knowledge, but should follow the rules of education teaching, computer talents growth, step by step for the students' learning and development to provide the necessary knowledge, skills and qualities.

**The Practice Teaching Methodology.** Knowledge comes from practice and ability, quality culture also needs to practice. To realize the practice teaching in the students' practical ability, the ability to analyze and solve the problems to improve the important position in the students' innovative spirit, the spirit of loving, cultivation of professional quality training aspects such as the important role of in the
To enhance general practice teaching performance, we should abide by the following advice. (1) Reasonable arrangement of the practical teaching plan. Practice teaching plan reasonably, to improve teaching efficiency. Between practice teaching and the theories teaching complement each other, the relationship between the students to master certain theoretical knowledge, practice teaching, deepen the consolidating theory knowledge. (2) Establish a complete practical teaching system and the mode. Practice teaching characteristic and practicability, the purpose is to cultivate the students' practical operation experience, improve students' practical ability. Pay attention to the quality education today, should determine the cultivation of good technical application skills. (3) The construction of excellent teachers. Teachers team not only have solid professional knowledge, but also have rich the practical experience, the teacher not only grasp thoroughly to basic professional knowledge, but also for the development of the society that need to master in time, so that they can adjust the teaching content, cultivate a more suitable for social demand of talents. (4) The improvement of the practice teaching facilities, the construction of teaching field. Campus practice teaching to lead through professional teacher, the teacher will be the latest technology development trends back to the classroom practice teaching, practice teaching and consistent with the actual development situation of society, forming simulation of the working environment in the school, strengthen students' practical ability to solve the problems. At the same time, the school can also and related enterprise cooperation, field exercises to send students to enterprises, let the students be familiar with and master the equipment running.

The Information Technology Education Tips. In the current science and technology, society has entered a rapid development of information age as information technology has been heavily promoted by the development of the industry restructuring and development, promoting the stable improvement of social economy. This means that information technology have the great productivity conversion function, its can through information technology to develop production of hardware, so as to improve the level of productivity. Thus, the setup and development of the information engineering is a major means of promoting social advancement and the way.

Information technology has been in various industries have great development and application, and the development of information technology and application also prompted the rise of a batch of new industries, improve the social industrial structure promote the development of social economy more rapidly. Coupled with the continuous development of information globalization, the information class professional talent training institutions more talent demand are put forward. This needs to open the
information engineering university to continue to deepen reform and improve the teaching level and the teaching quality, the greatest degree of cultivating students' innovation ability, so it can in the high speed development of information technology under the age of very good to meet the needs of society, and with strong ability of innovation to develop more advanced information technology.

**The Further Education form Suggestions.** Currently in the process of computer teaching, lack of modern network teaching and the interactive learning platform. Because of the limitation of the characteristics of their courses and classes of each course university computer teaching in classroom teaching a one-time very hard, and in the days after class on the experiment, without practice, many theory class teaching cannot fully grasp the content of the students. If the modern network teaching and interactive learning platform for the teaching, students in the process of theoretical study, soon to practice the operation, there is a problem in a timely manner and teacher interaction, teaching effect will be obviously improved and enhanced.

The new development of computer technology updates, practical, operational characteristics of the computer basic course, requires us to as soon as possible, change the old teaching mode and method to explore and attaches the great importance to the new teaching art and to adapt to the needs of the development of modern information technology. To strengthen the construction of applied colleges and to explore the applied talents training mode, strengthening adhere to the core application for this school localization. Deepening the teaching reform of the colleges and universities set up industry oriented applied disciplines to improve the level of training applied talents and construct reasonable curriculum system is the top priority.

**Summary and Conclusion**

In this paper, we conduct research on the practice teaching methodology and the applications on the information and computer majored practical universities. Country for the university education is to educate applied undergraduate talents new requirements, this requirement accord with current need for applied undergraduate talents, and a new idea of the university education reform. Applied in this article, through analysis the connotation of university education, summarizes the basic characteristics of the application-oriented university education and the main form, the cultivation aims, important aspects of scale while the training methods and so on is analyzed, and the application of university education transition, from course system, teachers, course arrangement, teaching methods, teaching evaluation and so on several aspects are analyzed and discussed. Additionally, we combine the unique characteristics of the information and computer major to propose the novel paradigm.

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**References**
