

# **Exploration on Undergraduate Practice Teaching Reform in Applied Talents Training Mode**

Hongtao Cui<sup>1, a</sup>, Dandan Zhang<sup>2, b</sup>

<sup>1</sup>Liaoning Institute of Science and Engineering, Jinzhou, 121013, China

<sup>2</sup>Bohai University, Jinzhou, 121013, China

<sup>a</sup> 570586680@qq.com, <sup>b</sup> 95769270@qq.com

**Keywords:** applied talents, training mode, undergraduate, practice teaching, teaching system, reform measures

**Abstract:** Practice teaching plays a very important role in the training of applied talents and plays a very important role. Improve the training quality of applied talents, analyze the problems existing in undergraduate practical teaching under applied talents cultivation mode; constructs the target system, content system, resource system, security system, management system and evaluation system of undergraduate practice teaching system under the mode of training applied talents; put forward the reform measures on undergraduate practice teaching in applied talents training mode, including: enrich the practice teaching methods and means, to promote the cooperation of applied talents training mechanism, constructing perfect practice teaching evaluation system, strengthen the teaching staff construction, relying on information technology to boost the innovation in practice teaching.

### 1. Introduction

Applied talents refer to a type of specialized personnel who can apply professional knowledge and skills to the professional social practice engaged and master the basic knowledge and basic skills in the front line of social production or social activities. They are mainly engaged in first-line production technologies or professions talent. Applied personnel training and specialty setting are mainly emerging specialty or new professional training direction, which is an important measure of national talent training strategy adjustment in recent years. It is also an effective means and way for local undergraduate colleges and universities to serve the regional economic and social development. Practice teaching is an effective way for colleges and universities to train their aims, consolidate theoretical knowledge and deepen their understanding of theory according to their own major, and it is an important part of cultivating high-quality engineers and technicians with innovative ideas. It is an important link between theory and practice, training students in mastering scientific methods and an important platform to improve hands-on skills. It is conducive to improving the quality of students and the formation of the correct values. Through practice to enable students to acquire perceptual knowledge, skills training, improve the overall quality, develop innovative spirit.

Practical teaching plays an extremely important role in the training of applied talents and plays a very important role. Not only can improve the practical ability of students, but also enhance students' innovative awareness and ability to innovate. The specific functions are as follows: Practical teaching promotes the organic combination of education and production labor, and solidifies the unity of book knowledge and social practice. Practical teaching promotes the socialization of students, forms the psychological quality that meets the social requirements, and realizes the transformation from natural person to social person. Practice teaching to promote the formation and development of students' virtue, help students to deepen their understanding of theoretical knowledge and form the correct value orientation; practice teaching to improve students' interest in learning, using abstract theory to solve specific problems, to mobilize the enthusiasm and initiative of students learning, Practice teaching to enhance students' comprehensive utilization of



the knowledge they have learned, so as to make the knowledge they have learned as a whole and form a reasonable knowledge structure; practice teaching to improve students' learning skills and skills and improve their ability of screening and applying knowledge; practice teaching cultivate students' innovative ability and practical ability, make students' cognition build on the basis of rich and sensible materials, and also be an effective means to cultivate students' creative thinking ability. Practicing teaching to train college students' comprehensive practical ability is force approach to improve the overall quality of students, also the basis for completing studies and employment. In order to give full play to the role of practical teaching, improve the training quality of applied talents, start the research.

### 2. Existing Problems on Undergraduate Practice Teaching in Applied Talents Training Mode

There are many problems in undergraduate practice teaching under the mode of applied talents training. By using systematic research method, literature research method and systematic analysis method, the existing problems are summarized as follows:

- (1) Practical teaching is still in the subordinate position of theoretical teaching. The teaching concept of "emphasizing theory and despising practice", attaching importance to imparting knowledge and neglecting skill training has generally resulted in the lack of awareness of students in cultivating their practical ability and directly affecting the improvement of practical teaching quality. The teaching rewards in schools tend to teach in the classroom theory. The situation of "attaching importance to academic research and neglecting practical links" is widespread in the teaching staff, which further impedes the improvement of practical teaching quality.
- (2) Insufficient investment in practical teaching. In recent years, although colleges and universities continue to increase investment in teaching funds, compared with the enrollment size and subject categories increased, the funding of practice teaching is still inadequate, there are the following problems: high equipment availability and update rates cannot be guaranteed; Experimental supplies cannot be replenished in time; experimental projects cannot be updated, the construction of practical teaching materials lags behind the pace of reform in other teaching links; laboratory construction decentralized, small-scale, single function.
- (3) the content and form of practice teaching is single. Affected by the traditional concept of education, the theoretical class is time-consuming, content is more difficult. Practical skills teaching that can reflect the characteristics of applied undergraduate education, lack of teaching hours, outdated content, lack of specialized practice teaching materials, especially the lack of practice of new technology and new technology. Course arrangements, mostly based on the practice, the lack of comprehensive and creative practice; in teaching methods, mainly instilling, the students' practical ability cannot be improved.
- (4) The construction of teaching staff in practical teaching is lagging behind. Practice teaching requires practical experience of professional teachers, but most college teachers are "from school to school", the lack of real understanding of the production site, the lack of comprehensive and objective understanding of society. Although they rich in professional knowledge, the lack of real professional practice. Colleges and universities go out of school gate to corporate practice, there is no relevant policy support and protection. Teachers' teaching concepts and teaching methods, it is difficult to adapt to the needs of applied talents training.
- (5) The practice teaching quality evaluation system is not perfect. Only by establishing a perfect quality evaluation system can we ensure that the practice teaching goes smoothly. The current practice teaching quality evaluation system has the following problems: unclear understanding of practical teaching evaluation, poor practical teaching evaluation, unreasonable evaluation of practical teaching system, incomplete evaluation of practical teaching, and a few subjects of practical teaching evaluation. These problems exist, are not conducive to solving the practical problems of teaching, lead to the blindness of the practice teaching reform.



# 3. Undergraduate Practice Teaching System in Applied Talents Training Mode

Practical teaching system is the organic whole formed by the various elements in practical teaching. Scientific and reasonable practice teaching system not only gives students practical knowledge, verification theory and training practical skills, but also embodies the combination of theory and practice, guiding students to master the scientific way of thinking, improve the ability to analyze and solve problems, cultivate students' innovative spirit And practical ability. The Undergraduate Practice Teaching System in Applied Talents Training Mode offered by this paper is composed of the following six aspects as shown in Fig 1.

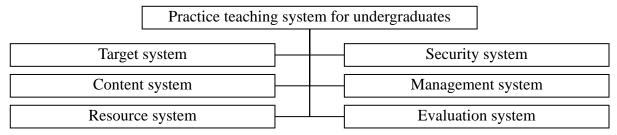


Fig 1 Component on practice teaching system for undergraduates

- (1) Target system. The target system plays a driving role in the whole system, which is determined by the total target of the school personnel training and the training objectives of each specialty. In addition to paying attention to theoretical knowledge and skills development, we should also strengthen our practice emotion and practice concept, highlight key capabilities, attach importance to innovation and professional ethics, and cultivate a scientific attitude of seeking truth from facts.
- (2) Content system. Content system is a concrete manifestation of the teaching target system, which mainly includes three stages: basic skills, professional skills and comprehensive skills. Through these three stages, students gradually carry out practical teaching activities, and constantly improve the practical ability to innovate, to achieve the goal of training applied talents for the cultivation of innovative and entrepreneurial ability.
- (3) Resource system. The resource system mainly refers to the practical teaching management platform which combines software and hardware. It is the main place for students to master various skills and is the supporting system of the whole system. The software platform carries out modernization and network management of the whole practice teaching. The hardware platform mainly includes labs, practical training bases and internship training bases in and out of school.
- (4) Security system. Improve the practical teaching support system, including improving the quality of practical teachers and strengthening the environmental construction of the practice base. Teachers should have a solid systematic theoretical knowledge, but also should have strong hands-on ability. To strengthen the environment construction of the practice base not only increases the experimental apparatus and equipment, but also strengthens the situation construction of the practice base.
- (5) Management system. The management system can ensure the smooth implementation of various tasks in practical teaching, establish laboratory management institutions and systems, implement specialized management on the use and maintenance of experimental training equipment and venues, and increase the experiment in schools, Internship and curriculum design and other practical teaching management efforts, with information feedback and control.
- (6) Evaluation system. With the application of ability training as the standard, design practical teaching evaluation system. The main body of evaluation is diversified, mainly teachers, including students, enterprises and the society. The combination of process evaluation and result evaluation is not limited to the result. It should also pay attention to the innovative ability demonstrated in practice. The content of evaluation is diversified. Develop a variety of evaluation methods.



# 4. Reform Measures on Undergraduate Practice Teaching in Applied Talents Training Mode

Applied talents training is the practical need of higher education to serve economic construction. Practical teaching reform is an important means to improve the training mode of applied talents. According to the characteristics of applied talents training, referring to the relevant literature and combining the actual conditions of undergraduate practical teaching, the specific reform measures proposed in this paper are as follows:

- (1) Continue to enrich teaching methods and means of practice. On the basis of designing practical teaching contents, various teaching methods and means are used to implement diversified teaching forms such as demonstration teaching, case teaching, school practice, extracurricular practice, social investigation and thesis writing. Some main courses adopt the theory of teaching in large classes and the teaching organization of small classes to discuss. When the number of students is large, grouping, batchwise and extra-curricular practice are used to alleviate and maximize the practical teaching. In practice teaching, students are in the leading position while teachers are in the service and guidance position. As the main body of practice teaching, based on the consolidation of the learned knowledge, students in practical teaching should focus on improving the ability of application and innovation. As a practical teacher, while doing a good job in guiding practical teaching, they should strengthen their own knowledge and skills to expand and update.
- (2) Promote the applied talent training mechanism for the cooperation between schools and enterprises. The school-enterprise cooperation mode is a kind of operation mechanism that is oriented by social and market demand. Through the cooperation between schools and enterprises, the advantageous resources of both parties are reasonably shared and the benefits of both parties are shared. School-enterprise cooperation is the lifeline of school development. Adhering to the cooperation between school and enterprise is the way to train applied talents and is the root of school survival. According to the development of enterprises on the demand for qualified personnel, timely adjustment of training programs, to adopt flexible and diversified modes of cooperation in running schools for enterprises to develop applied talents. Through the cooperation between schools and enterprises, establish an exemplary base, both for students to provide internship training, but also for enterprises to train qualified personnel. Through the establishment of an internship training base and the deepening cooperation between schools and enterprises, it not only can provide internship sites for teachers and students, but also promote the training of "double-qualified teachers", improve their professional skills and employability, and promote the healthy development of higher education. To give priority to enterprises to cultivate high-quality applied talent to create the conditions.
- (3) Build a perfect evaluation system of practice teaching. Construction of practical teaching evaluation system should follow the law of education and teaching and applied talent training, highlighting the basic characteristics of undergraduate education. When formulating the evaluation system, we should start from the positioning of professional personnel training and practice curriculum system, and conduct comprehensive and multi-angle monitoring on the practical teaching objectives, content, practical teaching support and teaching process. Students are the main body of education. Based on effective teaching objectives, curriculum content, teaching links, teaching methods, teaching management and teaching effectiveness, students must improve their overall quality. The evaluation of practice teaching before implementation mainly evaluates the correlation between teaching goal and professional training goal, and the coincidence degree between teaching content and practical teaching goal. The evaluation of practice teaching implementation process mainly evaluates the organization and management of practical teaching, safety practices, solidarity and cooperation and innovation ability. After the end of practice teaching evaluation, mainly evaluates the consistency between the results of the practice and the teaching objectives.
- (4) Strengthening the construction of teaching staff in practice teaching. Strengthening the construction of a contingent of practicing teachers is a crucial step toward improving the quality of practical teaching. First of all, changing concepts, education authorities and colleges should focus on the reform of professional practice teaching, pay attention to the construction of teachers, guide



teachers to change their concepts of education, and strengthen the practice of teaching management and policy support; and then promote practical teaching teachers to enhance professional ability, Carry out practical training around vocational qualities, teaching ability, education technology, professional skills, applied technology and innovation ability. Emphasis is placed on the construction of teachers' practical training bases to provide conditions for the teachers to engage in post-training exercises. Finally, practical teaching teachers are introduced through multiple channels and part-time teachers are employed to improve the structure of teachers and to supplement the amount of specialized practical teaching teachers. Break the academic degree level restrictions, focusing on the introduction of professional practice background and industry experience rich talent. Strengthen the management of off-campus practice instructors, give full play to the synergistic effect of enterprises and institutions, and both parties jointly administer practical teaching and instructing teachers.

(5) Relying on Information Technology to boost practice teaching innovation. Information technology with computer technology as the core is applied to practice teaching, which changes teaching mode, management mode and learning mode. By stimulating students' interests, stimulating students' multiple senses, deepening the learning impression and improving the quality of teaching and learning outcomes; by cultivating information literacy and raising students' attention to information, students are trained in information acquisition, processing, application analysis and the ability to use information tools; by enriching practical teaching methods, expanding the practical teaching space, practical teaching methods to diversify; through the cultivation of students' innovative abilities, take the initiative to participate in the activities of observation, experiment, verification, analysis, exchange and problem solving; through the use of practice management platform, strengthen the practice of process management, tracking students' practice, expand the channels of contact with students, and give timely guidance.

#### References

- [1] J. F. Liu, "Research on the strategy of strengthening the construction of practical teaching staff in applied undergraduate colleges," Journal of Hubei University of Science and Technology, vol. 35, no. 12, pp. 91-93, 2015.
- [2] H. L. Niu, "Practical Teaching Exploration and Innovation of Innovative and Applied Talent Cultivation," Construction Economy, vol. 36, no. 4, pp. 117-120, 2015.
- [3] X. H. Dai, Z. M. Li, "The Problems and Solutions of Practical Teaching on Developing Practical Talents with High Qualities," Journal of Chengdu University (Educational Sciences Edition), vol. 23, no. 1, pp. 8-10, 2009.
- [4] L. Wang, "Strengthening the cooperation between school and enterprise, promoting the training of applied talents," http://www.xzbu.com/3/view-7281211.htm, 2017-12-9.
- [5] X. S. Zheng, X. M. Li, J. X. Li, et al., "Construction of practical teaching system for training applied talents," China Education of Light Industry, vol. 20, no. 1, pp. 67-69, 2017.
- [6] L. Chen, J. L. Yang, L. X. Liu, "Exploration and practice of practice teaching reform in Independent college: based on the perspective of applied talents training," Experimental Technology and Management, vol. 32, no. 8, pp. 176-178, 2015.
- [7] Z. Q. Qiu, "Research on the development of practical teaching of independent college based on the training of applied talents," Jiangsu Higher Education, vol. 32, no. 1, pp. 76-78, 2016.
- [8] X. L. You, Y. K. Ma, L. Ma, "The reform and practice of the practice teaching evaluation system," http://www.xzbu.com/9/view-4331474.htm, 2017-12-11.
- [9] J. Wei, J. Ni, Y. Z. Wu, "Research on the establishment of practical teaching system for applied undergraduate based on vocational ability training," Experimental Technology and Management, vol. 32, no. 3, pp. 207-210, 2015.
- [10] M. Hong, "Research on the construction of practical teaching system in applied undergraduate colleges and universities," The Guide of Science & Education, vol. 8, no. 10, pp. 17-18, 2017.