

Discussion on Practical Teaching of Newly-Built Universities

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Abstract. Practical teaching is an important constituent part of teaching content of newly-built universities. This paper analyzes the current situation of practical teaching of newly-built universities first. Then, it raises solutions for problems from three aspects. On the one hand, it is essential to deepen the reform of practical teaching, improve the system of practical teaching, optimize the talent training plan, revise practical teaching syllabus and enhance the teaching level of teachers; on the other hand, it is essential to cooperate with enterprises, expand the practice field of students, emphasize the hardware construction of practice and enhance teaching management.

Introduction

The link of practical teaching is an important constituent part of teaching process of universities and it is one of main channels for training students' innovative consciousness and practice and application ability. It is definitely pointed out in the Opinions on Further Strengthening the Practical Teaching Work of Universities issued by the Ministry of Education that it is the road that university students must get through during their growth and success to stick to the integration of theory learning, innovation thinking and social practice and stick to learning from practice and learning from the masses. The development objective of newly-built universities is generally determined as local application-oriented universities, and it is essential to adhere to the thinking of combining practical teaching with theory teaching. Particularly, in recent years, some newly-built universities have carried out constant explorations and trials during implementation process of practical teaching work and have obtained some achievements, but there still have many places to be improved continuously.

Problems Existing in Practical Teaching

In order to adapt to the requirements of local economic and social development, some adult ordinary junior colleges are upgraded to universities, but the teaching staff and equipment cannot adapt to the requirements of application-oriented universities, and the practical teaching strength is relatively weak. Generally, they have the following problems:

Students' Practical Consciousness is Weak. Generally, from primary school to middle school and to college and university, students are used to the theory knowledge learning with classroom teaching as the main mode. They have less social contact and have no practical experience. Thus, they form a mindset and think that only theory learning is the most important, and they put no emphasis on practice link and lack enthusiasm and initiative for participating in practice.

The Full-time Practical Teaching Team Strength is Weak and Teachers Lack Practical Teaching Capability. Teachers are the designers and organizers of practical teaching. At present, the full-time practical teaching team strength is weak and there are no teacher team specializing in practical teaching or experiment (practical training) management. There are few teachers with qualifications of dual professional degrees having enterprise work experience and strong practical teaching capability, and teachers' practical teaching capability is weak, affecting the effective development of practical teaching link.

The Experiment (Practical Training) Fields, Experiment Instruments and Equipment are Insufficient. Though the centralized independent practical training link in the summer term has a certain role in facilitating the development and popularization of practical teaching, the centralized

practical training of students have the problems of insufficient laboratories, limited practical training fields, insufficient experimental instruments and out-dated experiment devices which cannot meet the requirements of experiment (practical training).

There are Few Teaching Materials for Practical Teaching. At present, practical courses are in a subordinate position and serve theory teaching, which have some influences on the teaching of practice courses. In addition, some practical teaching is mainly used for verifying the phenomena in theory teaching materials, and special teaching materials for practice are very few. Practice courses are opened to support theory course, making the whole practice process single and boring, and the internal relationship of all disciplines and specialties in practice courses is neglected; the practical training projects lack originality, and the design of practical training teaching lacks comprehensiveness and exploration.

Deepen the Reform of Practical Teaching and Improve the System of Practical Teaching

Revise the Practical Teaching Syllabus and Improve the Practical Teaching Plan. For all specialties, it is essential to revise the practical teaching syllabus according to the talent training plan and make specified regulations on the content, objectives, requirements, teaching facilities and assessment measures of practical teaching. For all specialties, it is essential to make use of the independent practice in summer term to make new deployments and arrangements for the practical teaching link, further refine the content of practical teaching, take the improvement in students' comprehensive quality and training of innovation spirit and practice capability as the main objectives of practical teaching, further analyze the requirements of employment of specialties and post development and open 8-12 centralized practice courses meeting talent training requirements to make the training route diagram of professional skills become more clear and basically meet the training requirements of all specialties for comprehensive practice capability.

Optimize the Teaching Staff of Practical Teaching Link and Enhance Students' Innovative and Entrepreneurial Ability. The undergraduate talent training plan increases practice credits and enhances the proportion of innovation and entrepreneurship courses. That requires schools to have an excellent teacher team for practical teaching. For all secondary schools, it is essential to, according to the characteristics of specialties, select or hire experts and teachers with professional practice experience in industries or enterprises for guidance of practice capability and it is essential to try to train students' practice capability and innovative and entrepreneurial ability as high as possible. Undergraduates shall use the summer term to carry out the training of practice projects including practice of professional cognition, practice of techniques and skills, base fixed-post practice, capability and quality expansion and innovation and entrepreneurship practice, which can not only expand their horizon, but help them to have further recognition of their specialty and future post.

Change the Teaching Thought and Improve the Practical Teaching. Practical teaching is different from theory teaching in that it breaks the teaching mode dominated by classroom teaching, takes students as the subject, with teachers playing the role of guidance and assistance. All secondary schools shall not be limited by administrative classes, but carry out diversified practical training. The courses of practical teaching link integrates small-class teaching and group teaching and reform the teaching methods, while most of practical training courses use heuristic, discussion and participative teaching methods for teaching and use flipped classroom to improve students' independent thinking capability and train students' practical operation capability and the capability of solving problems.

Promote the Preparation Work of Teaching Materials for Practice and Practical Training. It is essential to build a practical teaching resource library, select high-quality experimental teaching materials and experiment guide books, encourage teachers to prepare practical teaching materials, experimental teaching materials of main courses and experiment guide books according to the requirements of courses, which can be listed in the planning of school-level teaching materials, for which schools shall provide policy and resource support.

Enhance the Construction of Practical Teaching Conditions and Improve the Utilization Ratio of Teaching Resources

Enhance the Platform Construction of Practical Teaching and Establish a School Experiment (Practical Training) Management Center. Schools shall integrate experiment and practical training resources and establish a special school experiment (practical training) management center, which is in charge of the planning, construction and management of school laboratories (practical training rooms). It is essential to improve the laboratory system, build a laboratory system including multi-level and various laboratories and enhance the construction of multi-function and shared laboratory (practical training room). Laboratories shall cover all undergraduate specialties of the whole school and fully ensure the experiment (practical training) teaching inside courses of undergraduate program. In order to meet the students' experiment (practical training) requirements, school laboratories (practical training rooms) shall be opened for students of the whole school for 24h, realizing online booking.

Promote the Construction of Off-campus Practice and Training Base. In order to enable students to have some technical capabilities when they enter the society and move to professional posts, schools shall try to create practice opportunities for students to meet students' demand for practice and make that become ordered and normal. Newly-built universities shall cooperate with enterprises to build enough practice bases outside campus so as to meet the teaching demand and provide field and guiding teaching staff for the practice stipulated in teaching plans and accommodate a certain number of teachers and students of related specialties to carry out practice. They can also carry out further cooperation, such as training of teaching staff, co-construction of specialties and training of orders.

Further Promote the Cooperation between Schools and Enterprises and Build a University-enterprise Cooperation Platform Integrating Industry, University and Research. Newly-built universities can, according to the situation of schools, hold seminars of university-enterprise cooperation in running schools, have in-depth exchange with enterprises, open new channels for cooperation between universities and enterprises, build a new platform for mutual development and combination of universities and enterprises to promote the supply-side structural reform of education and teaching, innovate talent training modes, promote the combination of production and education and improve the quality of students' practice and practical training, which can play active roles in facilitating the transformation and development towards application-oriented universities.

Introduce Enterprises into Schools and Jointly Build Student Practice and Incubation Bases. Schools cooperate with Alibaba, Jingdong and other enterprises in building campus employment and business incubation bases and take the operation mode that schools dominate, enterprises participate in during the whole process while government provide active support. Schools provide sties; enterprises provide training; industries and enterprises provide one-to-one guidance; government provides policy support. It not only enhance post talent training, but promote the successful business and employment incubation. In terms of teaching, incubation bases adopt the talent training mode of "class-post combination and replacement"; students of related specialties can receive theory learning in morning and carry out practice and operation in the pertinent enterprise in incubation bases, which can effectively ensure students' practice and operation time. The talent training mechanism can fully arouse the enthusiasm of the three parties and it has significant effects.

Increase the Fund Input in Practical Teaching and Ensure Practical Teaching Quality. In order to better carry out practical teaching activities and meet the requirements for parts and elements and other requirements during the development of practical teaching, schools shall increase the fund input in practical teaching, allocate practice and practical training funds and discipline competition funds at a proportion so as to meet the requirements of students for outside practice, investigation, participation in competitions and teaching staff training. Only when sufficient funds are allocated in place can a solid foundation be laid for the better development of practical teaching.

Enhance the Operation Mechanism of Practical Teaching and Carry out Rectification to Promote Development

Perfect the Quality Standards of Practical Teaching. In order to further enhance the organization and management of practical teaching, improve the practical teaching methods and improve the practical teaching quality and level, all specialties shall, according to the objectives of talent training and the characteristics of practical teaching link, formulate definite, specific and operable quality standards for teaching links such as experiment and practical training, course design and practice and practical training, and implement teaching plans, teaching syllabuses, allocation of teaching staff and arrangement of teaching sites according to the standards, and all secondary schools shall carry out quality management over the whole process of practical teaching link.

Further Enhance the Quality Monitoring of Practical Teaching. The office of teaching affairs and the teaching supervision room shall, as the main part of quality monitoring of school practical teaching, carry out macro monitoring over the practical teaching quality of all specialties of schools. The office of teaching affairs shall carry out teaching quality inspections at the beginning, in the middle and at the end of spring and fall semesters and carry out quality monitoring over the experiment and practical training links of courses. In the summer term which is the centralized practice term, schools formulate a strict quality monitoring system, timely collect and evaluate the information of practical teaching quality and timely feed back the results to all secondary schools so as to further improve the practical teaching ideas and enhance the practical teaching quality.

Further Improve the Construction of Practical Teaching Team and Build an Effective Incentive Mechanism. Pay attention to the construction of laboratory technician and practical teaching staff and ensure that the number of staff can meet the requirements of practical teaching and management through reasonable personnel allocation and scientific post setting. Allocate teachers to take a temporary post in industries and enterprises to exercises in a planned way, train a high-quality practical teaching staff strength having both enterprise work capability and practical teaching capability and build an experiment (practical training) management team knowing properties and basic maintenance of experiment instruments.

Conclusion

Newly-built universities must constantly strengthen the prominent position of practical teaching, adhere to the principle of all-round education, carry out exploration with persistence, gradually perfect the teaching system of practice education to make experiment teaching, comprehensive practice and innovative practice complement each other, realize combination of universities and enterprises and promote the harmonious and all-round development of students in terms of knowledge, capability and quality.

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