

Construction of Application-oriented Practical Teaching System in Private Undergraduate Colleges Based on OBE Concept

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Abstract: In the face of the new situation of transformation and development, there is a certain gap between the teaching of private undergraduate colleges and local economic development, and the requirements of the society on the practical ability, innovation and entrepreneurship of high-quality applied talents. The practical teaching system is not scientific, rich and practical. There are also many problems in the process of development. As an application-oriented undergraduate college, private colleges should make use of external social resources and conditions to make up for the disadvantages of practical teaching, and strengthen the construction of teaching teachers according to the requirements of professional practice, so as to establish the advantages and characteristics of professional disciplines in colleges and universities, improve the quality of education, and build a set of distinctive innovative practical teaching system. Under the concept of OBE, this paper puts forward the concrete methods and measures for the construction of practical teaching system from the aspects of practical teaching objective, space, mode, connotation, individuation and evaluation.

Keywords: Outcome Based Education, Practical teaching system, Application type, Private undergraduate university.

1. Introduction

With the deepening of the optimization of industrial structure, the proportion of technology-intensive industries and capital-intensive industries in the GDP has increased year by year, and the demand of the society for talents has also changed, which puts forward higher requirements for their practical innovation ability. Practical teaching is an important means for applied talents in colleges and universities to develop innovative consciousness and entrepreneurial ability, and also an effective way for talents in colleges and universities to meet the needs of enterprises and society. In order to cultivate talents with practical ability, European and American countries put the training of practical ability in the first place. Before 2000, higher education mainly imparted knowledge in schools and made no strict distinction between research talents and applied talents. With the promotion of "Made in China 2025", the demand for application-oriented innovative talents is increasing, which puts forward new requirements for practical teaching. Based on the concept of OBE (Outcome Based Education), a consensus was reached on the importance of student-centered and continuous improvement of the evaluation system to the cultivation of applied talents.

2. Research Background

According to the Outline of the National Plan for Education Reform and Development (2020-2030), China's universities aim to cultivate high-quality technical talents with strong innovation ability and adapt to social development. Practical teaching is a key component of the cultivation of applied talents' innovation ability. Compared with theoretical teaching, it is more intuitive, comprehensive and creative. Practical teaching can not only cultivate students' practical ability, but also inspire students' creative spirit and creative consciousness. It plays an important and irreplaceable role in cultivating students' practical ability, application ability and

innovation ability. Therefore, the construction of application-oriented practical teaching system in private undergraduate colleges is an important measure to implement educational policy, implement quality-oriented education and promote educational innovation, and has positive significance to improve the quality of application-oriented personnel training.

The development time of private undergraduate colleges is short, the educational orientation is different from that of research universities, and the talent training mode is mainly applied talents, which requires the characteristics of application and practice in the teaching process. Therefore, the construction of practical teaching system plays an important role in the process of personnel training in private undergraduate universities. In recent years, almost all private undergraduate colleges and universities are committed to strengthening the construction of practical teaching system. Some colleges and universities have adopted the mode of increasing the proportion of practical hours and actively expanding teaching methods and approaches. However, it can be found that only relying on the increase of the number of class hours cannot guarantee the teaching quality. It is still necessary to build a reasonable practical teaching system and implementation measures to ensure the practical ability training to be implemented and effectively guarantee the quality of application-oriented talents training.

3. Current Situation and Existing Problems of Practice Teaching System in Private Undergraduate Universities

According to the statistics of the national education industry in 2022, there are 764 private colleges and universities in China. Among them, 390 regular undergraduate schools; 22 vocational schools at undergraduate level; 350 higher vocational (junior college) schools; 2 adult colleges and universities. There were 9.2489

million civilian-run ordinary and vocational college students.

Most private undergraduate universities in China are gradually transforming into applied universities, which also means that our higher education has entered a new period of active promotion, collaborative innovation, production-education integration, and all-round improvement of the quality of higher education. In the process of training applied talents, practical teaching has become the key link to achieve the teaching goal, but there are still some problems to be solved in the development of private colleges and universities. Most schools offer practical teaching links including in-class experiment, course design (practical training), professional knowledge practice, graduation practice, graduation design and other links. Practical teaching system has the following main problems in teaching objectives, teaching space, teaching mode, teaching connotation, teaching individuation, teaching evaluation and other aspects:

3.1. The goal of practical teaching is not clear enough, and the guidance of value goal is not clear enough

From the perspective of teaching objectives, the combination degree of educating function of higher education courses and value guidance in practical teaching is not high enough, and the degree of emphasis is not enough. Explicit education and implicit education have not unified to form the effect of collaborative educating. Educational concepts such as "cultivating virtues and cultivating people, OBE concept, curriculum ideology and politics" have not been fully integrated into the system of practical teaching objectives, and the idea of "emphasizing theory and neglecting practice" is still a relatively dominant existence in private colleges and universities. Teachers still give priority to theory teaching in the teaching process, with hands-on operation as auxiliary, and the examination content is mainly concentrated on theoretical knowledge. Practical teaching is still in a subordinate position.

3.2. Insufficient connection of practical teaching space and lack of "breadth" and "depth" of curriculum system

From the perspective of teaching space, the practice teaching of private undergraduate colleges and universities places more emphasis on in-class, less on extracurricular, on campus, less on reality, less on virtual, etc. As an extension of classroom teaching, the second classroom and even the third classroom have yet to form diversified and multi-channel teaching forms, teaching contents need to be enriched, and the linkage with the first classroom is also lack of strength. It makes the practice teaching of private undergraduate colleges lack the "breadth" and "depth".[1]

3.3. The practical teaching mode is lack of innovation, and the methods and methods stick to the tradition

From the perspective of teaching methods, the practice teaching of private undergraduate colleges still stays in the traditional teaching mode of "teachers teach, students listen, teachers teach, students imitate". Project learning, action oriented, task-driven and other diversified teaching methods and methods with "learning as the main body and teaching as the leading role" are not studied and applied enough, which fail to fully reflect students' learning subject status in practice,

and students' subjective initiative in learning, innovation and entrepreneurial consciousness have not been fully stimulated.[2]

3.4. There is a lack of innovation and entrepreneurship elements in practical teaching, and the integration of innovation and entrepreneurship education needs to be deepened

From the perspective of teaching connotation, the combination of practice teaching and innovation and entrepreneurship education in private undergraduate universities is not close. There is a lack of practice and training platform under the background of innovation and entrepreneurship, a lack of scene-oriented innovation and entrepreneurship education training place, and the creation of teaching scene with zero distance between classroom and workplace has not yet been formed. There is a serious disconnect between professional education and work scene and real society. Graduates have poor career adaptability to actual jobs in the industry.

3.5. The differentiation of practical teaching is still weak, and personalized guidance is insufficient

From the perspective of teaching individuation, the practice teaching of private undergraduate colleges and universities can not fully meet the different needs of the individualized development of students. It does not pay enough attention to the individual characteristics and interest differences of students, the classification teaching link is weak, the guidance and help is not in place, and the practice teaching can not really achieve differentiated teaching.

3.6. The assessment and evaluation of practical teaching is not perfect, and it is difficult to meet the requirements of diversified evaluation

The ability of applied talents needs diversification, diversification ability, this leads to more diversified evaluation system also 快 setting. At present, although there are other process scores in the course assessment of most private undergraduate universities, the proportion is not high, and there is still a phenomenon that the final assessment plays the main part. Students can not completely get rid of the traditional exam-oriented education thinking. However, paying too much attention to the evaluation method of examination results and ignoring the evaluation mode of process are not conducive to reflecting the real learning level of students, affecting the play and stimulation of students' learning enthusiasm and interest, and it is difficult to meet the diversified evaluation of students.[3]

4. The Ability Training Target of Applied Practical Teaching System in Private Undergraduate Universities

Application-oriented talent training mode mainly focuses on students' practical ability. The reform of practical teaching should not only expand the comprehensive and innovative practice links, but also achieve overall improvement in the

construction of practical teaching curriculum system, curriculum and teaching mode reform, curriculum platform construction, comprehensive evaluation and other fields. Practical ability for applied talents is mainly reflected in the following aspects:

4.1. The ability to analyze and solve problems

To express, analyze and solve the problems in the process of training complex higher education professionals; Scientific and technological means can be used to carry out experimental design, data analysis and solution for relevant courses; In the face of complex professional problems, we can make reasonable use of digital means to carry out project analysis and problem solving.

4.2. Learning ability

At present, the world economy is developing rapidly, scientific and technological innovation is changing with each passing day, new equipment and new technology keep emerging, only in the work of continuous learning, continuous self-improvement, timely grasp of new equipment and new technology, in order to use the latest scientific and technological knowledge to improve productivity and create more social value.

4.3. Practice hands-on skills

Practical ability is one of the important criteria to measure

practical ability, and practice is an important way to test theory. Everything only practical practice, the theoretical knowledge can be transformed into practice, in practice to constantly improve the level of knowledge, the formation of a virtuous circle of self-improvement.

4.4. Social adaptability

The ultimate purpose of college training students is to step into the society, enter all walks of life, create value for the society and become a talent needed by the society. Therefore, it is the first thing to cultivate students' social adaptability. Only with good social adaptability can students adapt to the social environment and corporate culture as soon as possible and achieve personal development.

4.5. Innovation and entrepreneurship ability

In the practice process, the use of knowledge to solve practical problems, have in such aspects of creation. The innovation and entrepreneurship ability of college students has been gradually written into the talent training plan of colleges and universities. The state attaches more importance to the innovation and entrepreneurship ability of college students and has introduced a number of supporting policies.[4]



Figure 1. OBE practical teaching ability cultivation relationship graph

5. Construction Path of Application-oriented Practical Teaching System in Private Undergraduate Universities

Based on the OBE concept, private undergraduate universities should constantly emphasize the principal position of students, and emphasize that students should make clear their learning goals and career goals from the beginning of study. The concept of OBE emphasizes that students are the center, and teachers' status is transformed from "leading" to "guiding". In teaching, they make good use of demonstration, diagnosis, evaluation, feedback, constructive promotion and other strategies to guide and assist students to

achieve learning goals and learning effects.

Based on the above five ability objectives of OBE cultivation, private undergraduate universities, as an important part of higher education, should make full use of their own flexible policies and limited teaching funds, do a good job in the construction of practical teaching system, and effectively achieve the goal of application-oriented talent training.

5.1. On the basis of talent training program design, clear graduation requirements and training objectives

The formulation of application-oriented talent training program based on OBE concept should follow the principle

of "production-oriented, results-oriented, closely related to the needs of national and social development" and "combining internal and external, giving full play to advantages and highlighting training characteristics". Therefore, based on the concept of OBE, the design of application-oriented talent training program should follow four principles: first, clear training objectives, all objectives should focus on the final learning results achieved by students, which is also the basic principle of OBE; The second is to

reflect differentiation, to fully consider the individual differences between students, so that students have a variety of ways to achieve learning results; The third is to challenge excellence, develop challenging learning outcomes, encourage students to learn deeply, strive to achieve more successful learning, achieve higher levels of success; Fourth, reverse design, starting from the final learning results, according to the goal of talent training to design the curriculum system.^[5]

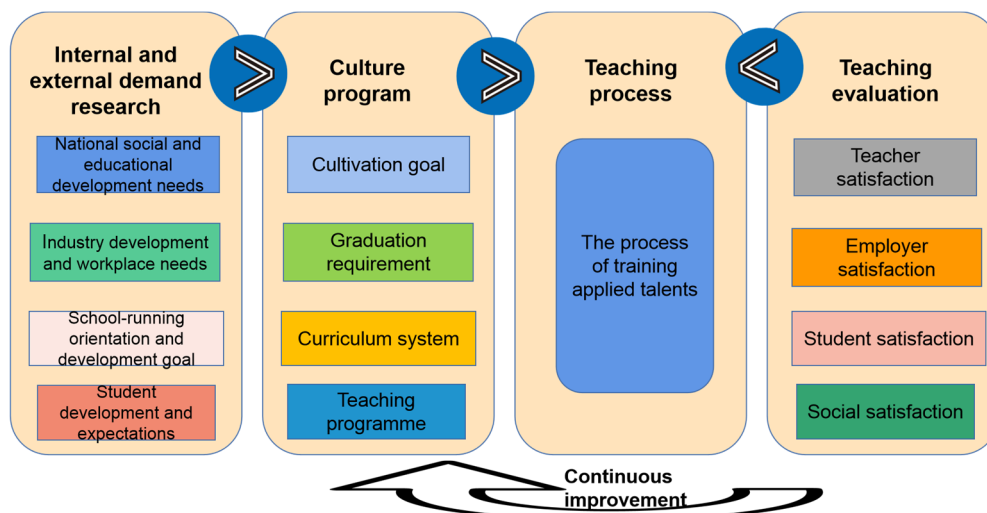


Figure 2. Based on OBE talent training program development, implementation, improvement model

5.2. With OBE ability training as the guide, create the organic connection of "first class +second class"

The applied practical teaching system should give full play to the practical education function of professional courses, and build a curriculum system of "major + ideological and political science" and "theory + practice". The ideological and

political elements in professional practice courses should be condensed, the ability training objectives of professional courses should be clarified, and the cognitive ability of vocational positions should be strengthened. Through the study of professional courses, general elective courses and other course modules, the second classroom should be connected, and the goal of application-oriented talent training for students should be realized from the "point-block-face" path. [6]

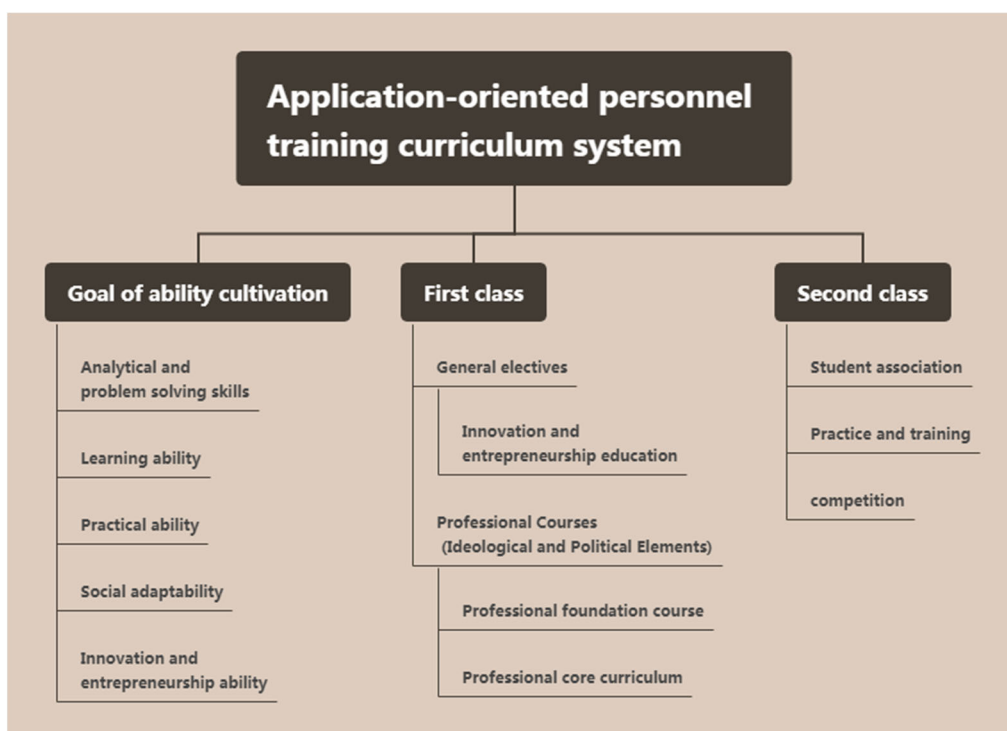


Figure 3. Application-oriented personnel training curriculum system

5.3. To create a real practice platform by means of scene teaching

By constructing various work scenes and virtual simulation scenes, creating scenario-based teaching training bases and practice platforms, or taking the opportunity of professional digital transformation, creating virtual work scenes and building virtual simulation training rooms with the help of virtual simulation experimental teaching platform, the "breadth" of practical teaching can be expanded in a multi-channel and all-round way. To enhance students' sense of reality, sense of harvest and sense of experience, and cultivate students' social adaptability and practical ability. Strengthen the school-enterprise cooperative education mechanism, cooperate with local industries to build scene-oriented teaching bases, increase the intensity of off-campus practice and training, and carry out the combination of online and offline mixed teaching with the help of various channel resources of the course, break the concept of teaching time and space in practical teaching, practical teaching extends from classroom to extracurricular, from real teaching environment to virtual teaching environment.

5.4. With innovation and entrepreneurship education as the starting point, we will cultivate and incubate practical projects for students

OBE teaching concept emphasizes the "student-oriented" education model, teachers are more to learn to enlighten, consult, guide and guide. Under the background of innovation and entrepreneurship education, the practice teaching of private undergraduate colleges should realize the transformation from the "imitative imitative" taught by teachers to the "learning mode" of students' active learning and experience, so as to better stimulate and cultivate students' innovation and entrepreneurship ability and subjective initiative. Through the extensive practice of project learning, task-driven and other action-oriented teaching models, the study of professional courses is combined with project learning to stimulate students' interest in learning, cultivate students' autonomy and independence, ability to analyze and solve problems, courage to innovate, and teamwork spirit. By applying for and hosting research projects with practical significance, and by the national college students' Innovation and entrepreneurship training program, Xinmiao, Internet + Innovation and Entrepreneurship Competition and other projects, we constantly cultivate students' innovation and entrepreneurship awareness, thinking, spirit and ability.

5.5. With application ability and innovation and entrepreneurship as the core, the layered practical teaching is carried out

According to the law of talent training and the characteristics of practical links, with application ability and innovation and entrepreneurship ability as the core, combined with the talent training requirements of each major, from lower grades to higher grades, through the whole process of talent training in the university. Basic practice covers all majors in the university, and carries out basic practice activities according to the characteristics of each discipline category. To return to their respective majors, they should

carry out professional practice activities according to the characteristics of their respective majors, and convert professional theoretical knowledge into practical results. In comprehensive practice, students of similar majors follow the principle of "project driven, practical production and teaching according to demand" and formulate practical plans according to projects released by the industry. Through literature review, field investigation and research, students strengthen the training of comprehensive technology application ability, further deepen the understanding of theoretical knowledge, and exercise the ability to solve practical production problems. Innovation practice is mainly based on the combination of innovative thinking training and innovative ability cultivation. Through student programs such as discipline competitions and National innovation, high-quality students are selected to enhance innovative ability by virtue of internship and training platforms. At the same time, it can also rely on teachers' teaching and research projects to feed practical teaching, promote the expansion of in-class practical teaching content to practical application content, and lay a foundation for cultivating students' innovation and scientific research development ability.

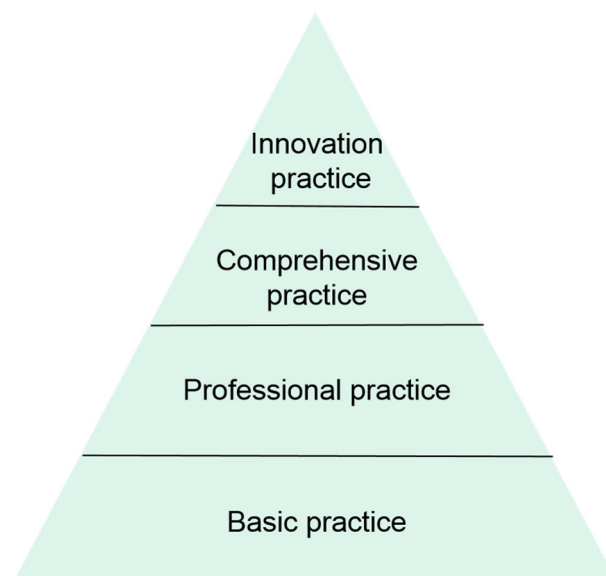


Figure 4. Hierarchical practice teaching model

5.6. With satisfaction as the evaluation method, the "four-in-one" practical teaching evaluation system is constructed

The construction of practical teaching evaluation system takes the goal of training applied talents as the top-level design, follows the concept of OBE, highlights the basic logic of higher education, and aims at improving the quality of practical teaching. Starting from the orientation of application-oriented talent training and the practical teaching system, the practical teaching evaluation system of "evaluation subject, evaluation object, evaluation index and evaluation method" and "four in one" are constructed, and the comprehensive, multi-angle and multi-channel diversified evaluation methods are established. Students, supervisors, peers and society are the main body of evaluation. The evaluation system of applied practical teaching is constructed by enriching teaching content, improving teaching management means, improving teaching conditions and

optimizing teaching effects, and by improving students' general ability, professional ability, innovation and

entrepreneurship ability, career development and social ability.[7]

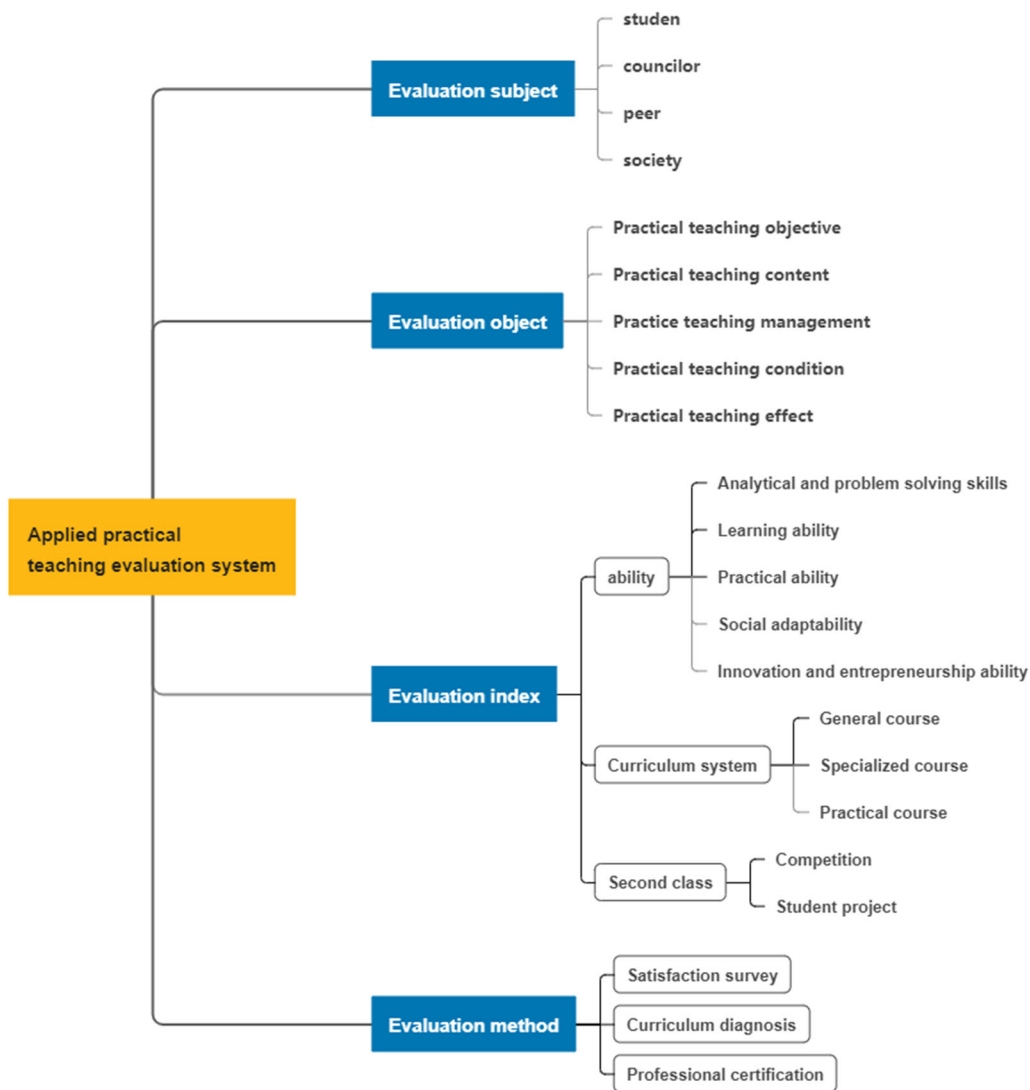


Figure 5. "Four in one" applied practical teaching evaluation system

6. Conclusion

The higher education of private undergraduate colleges takes the cultivation of applied talents as its own duty, and its practical teaching system plays an important role in the cultivation of talents. To construct an application-oriented practical teaching system suitable for the development of private undergraduate universities is an important carrier to improve the quality of practical teaching and an important means to further promote the training of application-oriented talents. The practical teaching system established according to the concept of OBE aims to cultivate students' ability of analyzing and solving problems, learning ability, practical operation ability, social adaptation ability, and innovation and entrepreneurship ability as "five abilities in one". It aims to clarify practical teaching objectives, reform practical teaching methods, and improve the evaluation of practical teaching system. To realize the continuous improvement of the quality of application-oriented personnel training in private undergraduate universities.

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