

An Exploration on the Training Mode of Economics and Management Majors in Applied Universities Based on OBE Concept

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Abstract

The OBE concept provides a result oriented educational approach for the innovation of talent cultivation models and the deepening of teaching reform in applied universities in the field of economics and management. This article first systematically reviews the problems existing in the talent cultivation mode of applied universities in the field of economics and management. Combined with a series of teaching reform experiments in economics and management courses, a talent cultivation mode for applied universities in economics and management based on the OBE concept is constructed from five levels: setting training objectives, penetrating training methods, designing teaching processes, innovating teaching methods, and evaluating achievement. Specific implementation paths are proposed. Therefore, it effectively improves the quality of talent cultivation in the field of economics and management.

Keywords

OBE Concept, Individual Education Mode, Applied Universities and Colleges, Economic and Management Majors, Train Mode

1. Introduction

The concept of OBE Education arose first in the United States, and the American scholar Spady took the lead in proposing the concept of OBE, and a systematic discussion of OBE is made in the article “Outcome Based Education: Critical Issues and Answers” (Spady, 1994). The Ministry of Education “National Standards for Undergraduate professional Teaching Quality in Colleges and Universities” emphasizes that the evaluation of undergraduate professional education quality

should emphasize student-centered, output-oriented, and continuous improvement. Among them, results-based education (OBE) means that the teaching process and results should not only be student-centered on a macro level, but also should pay more attention to what students finally learn, what extent students learn and whether they learn well.

The concept of results-oriented education emphasizes the development of teaching objectives and teaching design guided by student learning outcomes. This concept holds that education should be student-centered and production-oriented, and teaching resources should be designed and utilized reasonably. The improvement of students' ability should be realized by rebuilding the education system (Li & Tan, 2017). The main connotation of OBE education concept is to take the expected results of students' learning as the core. In the actual teaching process, guided by students' learning expectations, the teaching structure is reverse-designed, and a perfect outcome evaluation system is formulated to test students' learning effects and ensure students' learning quality. In addition, the concept of OBE education is based on students as the subject of learning, based on clear teaching process, and with the assistance of schools and teachers as the guarantee, it advocates students' independent learning and self-evaluation of learning effects. In the teaching process, teachers mainly guide students, let students know how to learn and give guidance to students on problems in learning.

At present, many application-oriented universities have gradually applied the OBE concept and method to the training and discipline construction of economic and management professionals¹. Application-oriented colleges and universities focus on cultivating qualified talents for the society and enterprises and facing the demand of market talents. At present, economics and management subjects pay attention to frontier knowledge, pay attention to the cultivation of students' economic consciousness and logical ability, but there is still a certain lack of application. In traditional teaching, teachers have simple teaching methods, mechanical teaching, and poor classroom interaction, and students have difficulties in understanding the essence of theories and memorizing knowledge points by rote (Wang & Li, 2019). At the same time, Chinese colleges and universities still lack a clear positioning and systematic understanding of applied talents, and cannot accurately grasp the specific requirements of enterprises and times for talents. The current application-oriented talent training model is still not mature enough, such as the lack of flexibility of training methods, cannot accurately match the needs of enterprises and the development requirements of the society. The training of economic and management talents should highlight the characteristics of its application, practicality, and the matching of enterprise needs. Therefore, the concept of OBE is introduced into the training mode of applied talents of economic and management majors to explore a new path of education in the new era, to adapt to the new requirements of social development in the new era, and constantly optimize

¹Such as Dongbei University of Finance and Economics, Beijing Institute of Petrochemical Technology, University of Shanghai for Science and Technology, and so forth.

the training mode of economic and management professionals in applied colleges and universities.

2. The Current Situation of Economic and Management Talents Training Mode in Applied Universities and Colleges

The key to the training of economic and management professionals in China is to continuously improve the training level of applied economic and management professionals. However, at present, the training system of applied talents in China does not conform to social needs, the orientation of talent training is unclear, the orientation of demand is insufficient, and the matching degree of practical teaching resources and the maturity of teachers also need to be improved.

1) The orientation of talents training is not clear enough

In the era of digital economy, the demand for economic and management talents shows a rapidly changing trend. At present, the innovation and reform of the applied talent training system for economic and management majors in most undergraduate universities are not enough, the form of talent training is too simple, some majors still use the talent training system, structure, and model of ten years ago, the talent training program lags the background of The Times and the needs of enterprises in the new era, or the training plan and learning content do not match the market demand (Yuan et al., 2019). In addition, at present, most applied colleges and universities focus on the teaching of systematic theoretical knowledge in the cultivation of economic and management professionals, which fails to fully consider the characteristics of students, and fails to achieve the purpose of promoting the development of students' comprehensive quality (Peng & Li, 2018). As a result, when facing a certain practical problem, students will only rely on theoretical knowledge to think unilaterally, and cannot plan the problem with the actual situation, think systematically and control it in all aspects. As a result, students cannot deal with the problem well.

2) Demand-oriented targeted training is insufficient

The training of economic and management professionals in application-oriented universities should be guided by the needs of enterprises. At present, the cooperation between universities and enterprises is not strong enough, the understanding of enterprises is not thorough enough, the emphasis on the training of application-oriented talents is insufficient, and the characteristics of formalization are shown, which leads to the gap between the training of talents and the market demand. There is a largely disconnect between theoretical knowledge and practical application (Wang, 2023). Although the number of college graduates is directly proportional to the demand for labor in the labor market, the actual ability of students still cannot meet the quality requirements of enterprises, which eventually leads to the contradiction between excess labor force and insufficient applied talents in the labor market. In addition, the training program adopted in the training process of economic and management talents does not consider the individual

differences between students, and could not carry out targeted teaching. In the process of training, students generally pay attention to the study of theoretical knowledge and professional knowledge, and students' professional practice courses are lacking, ignoring the integrated learning of courses. At the same time, the knowledge structure of students is simple, it is difficult to choose learning according to personal interests, and the enthusiasm of learning decreases, which ultimately affects the learning effect of students (Xu, 2019).

3) Insufficient matching of practical teaching resources

At present, most application-oriented colleges and universities do not pay enough attention to the practical teaching of economic and management majors, and have insufficient investment in funds (Wang et al., 2021). At the same time, they also lack excellent practical teaching teachers of economic and management majors. Some of the existing practical teachers lack social experience, which leads to the deviation of the teaching effect of practical courses and the lack of comprehensive quality of students. Students also lack comprehensive practical operation in practical courses. The construction of practice sites is not perfect, the management of some practice bases is lacking, and the scientific evaluation mechanism is lacking, leading to the low quality of students' practice (Sun et al., 2022). In the actual practice teaching is mainly to serve the theoretical knowledge, and each university has not established a perfect practice teaching system, which makes it difficult for the economic and management talents cultivated by colleges and universities to meet the needs of The Times for high-quality talents. In addition, going to the enterprise to experience is an important content of students' applied talents, truly participate in the various practical links of the enterprise, and can have their own understanding and perception. Some of the practical links of the enterprise can also be realized through the sand table simulation, and the school can restore the practical process of the enterprise through the sand table experiment as far as possible, which greatly reduces the cost. However, most application-oriented colleges and universities have insufficient input in practical resources, need to improve platform construction, and lack of professionalism, which cannot meet the practical training needs of students, resulting in difficulties in improving the level of application-oriented personnel training.

4) The teaching staff of talent training is not mature enough

Many economic and management majors in application-oriented colleges and universities improve the teaching quality of application-oriented personnel training through the construction of "double-qualified" teachers. By sending teachers to the enterprise practice survey, enterprise application-oriented tutors into the classroom, teachers' practical training construction system, etc., these measures have played a certain positive role in school-enterprise cooperation and the combination of industry and education (Yu, 2023). However, there are still some deficiencies in the construction of "double-qualified" teachers in economic and management majors. First, most full-time teachers of economics and management majors are doctors with good professional reserve knowledge and skilled

teaching skills, but few have relevant practical experience in enterprises, so they cannot provide guidance in practical teaching in enterprises (Wang et al., 2021). To cultivate application-oriented talents, various economic and management majors invite professional talents from enterprises to the classroom to give on-the-spot guidance to students' practical skills. However, professional talents in enterprises are not professional teachers, and there is a gap between the teaching methods and teaching rhythm and professional teachers, so the teaching quality is naturally not ideal.

3. Construction of Training Mode of Economics and Management Professional in Applied Universities Based on OBE Concept

The core of OBE is output oriented, training talents according to market demand. Based on the OBE concept, the training mode of economic and management professional talents in applied universities is as follows: With OBE concept as the core, the teaching objectives based on OBE and "student-centered" concept are constructed, the training methods based on general education and individualized training are combined, and the teaching process design is based on the combination of theoretical teaching and practical development. The output evaluation system based on the combination of knowledge achievement degree and practice achievement degree ensures the true realization of OBE concept in the whole process of teaching goal setting, training method selection, teaching process design and output evaluation system, as shown in **Figure 1**.

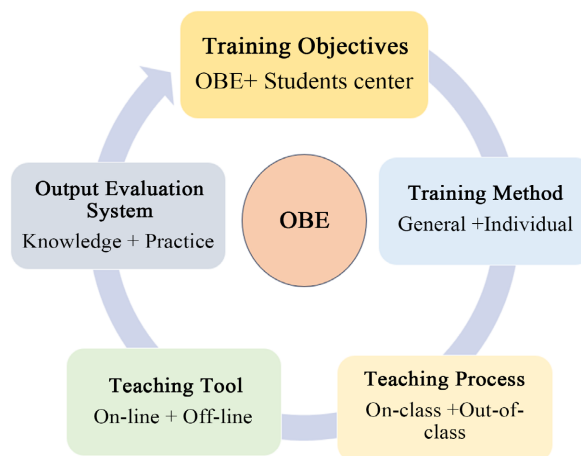


Figure 1. Construction of training mode based on OBE concept.

1) Construction of training objectives based on OBE and the "student center" concept

First, the formulation of training objectives needs to go out, face the market, and follow the output-oriented principle of reverse design and forward construction. Through research and investigation, the training objectives, graduation requirements and course modules of economic and management majors should be

formulated closely in line with social and market demands (Li & Li, 2023). Guided by the concept of OBE, we will investigate the talent needs of society and enterprises in the form of expert consultation and interview, organize the teaching reform team to hold a special meeting on the teaching design of this course, make it clear that the goal of training engineering professionals who understand economy and good management is to be made clear in engineering colleges and universities, and further clarify the teaching objectives of the course. In other words, based on guaranteeing students' independent learning and professional knowledge learning effect, we should pay special attention to the cultivation of students' economic management consciousness, logical thinking ability and social observation ability.

Second, the design of training objectives should break the structure and framework of the curriculum knowledge system and aim at students' ability and accomplishment. Through the design of various teaching contents and the application of teaching methods, the initiative of students to acquire professional ability and accomplishment should be cultivated. Through the digital resource platform, more thematic discussions should be designed in the classroom teaching content to cultivate students' ability to solve professional problems (Liu & Li, 2022).

Third, two principles should be followed in the setting of training objectives and the combing of corresponding teaching contents: First, consider the self-learning effect of students; the second is to combine the actual needs of society and enterprises.

2) Training method innovation based on both general and individual education

The training of economic and management professionals needs to innovate the training methods, constantly explore and innovate the most direct and effective training methods according to the differences in industry needs, teach students according to their aptitude, and carry out personalized education and training. The training of economic and management professionals needs a rich knowledge reserve, including the cross-integration of economics, management, sociology, psychology, humanities, engineering, and so force (Liu, 2022). It breaks the traditional single general education teaching module and emphasizes the integration of general education and personality cultivation. First, the teaching module of the talent training program is revised. In addition to traditional general education courses, professional education courses and practical teaching links, innovation, and entrepreneurship courses (practical teaching links) are added, including compulsory courses, elective courses, and social practice. The compulsory course solves the common problem of professional knowledge and cultivates general talents; Elective courses are selected online according to students' interests and wishes, and are taught according to their aptitude to cultivate personalized talents. Secondly, broaden the dimension of talent training, the first class (in-class teaching) to cultivate general talents; the second classroom (various research centers, professional learning societies, innovative and creative teams, economic and mana-

gement professional practice bases, etc.) cultivates personalized talents and strengthens the integration training of general and personalized talents.

3) The teaching process design based on the combination of rational classroom teaching and practical development

The design of teaching process should combine classroom teaching with practice development. Classroom teaching pays attention to general education courses, professional education courses, practical teaching links and other classroom teaching, and emphasizes the role of teachers in preaching, teaching, and dissolving doubts. Teachers explain difficult knowledge points, organize students' discussions, arrange practical training operations, and organize project promotion. The project-driven method mainly refers to the project-oriented and theme-based teaching method, which introduces real projects or themes into the teaching process, takes the design project or theme as the object, integrates relevant knowledge points into each link of the specific project or theme, pays attention to the transformation and application ability of students' knowledge, the cultivation of innovation ability and practical ability, and pays special attention to the standards and norms of the market industry. Strengthen the docking with the market and the industry, and strengthen the cultivation of students' practical ability.

Practical teaching can make full use of research centers, practice bases and tutor studios to expand learning and cultivate practical ability around teachers' practice projects, scientific research projects, innovation and entrepreneurship team projects, off-campus practice bases and off-campus practice units (Liu & Han, 2022). Practice teaching can also introduce discipline competition in the integrated practice module, organize students to participate in various discipline competitions at home and abroad, and evaluate students' learning effect and ability level based about the competition. Horizontal comparison of design students in domestic and foreign universities is carried out to encourage students to look at the world and test and improve their application ability through competition.

4) Based on the combination of online and offline teaching methods

The rapid development of the Internet has promoted the innovation of educational means, and the traditional teaching has ushered in new opportunities and challenges. With the help of various network platforms, integrating the advantages of traditional classroom and network teaching (Li et al., 2020), the implementation of blended teaching has become a trend of teaching reform in colleges and universities. Economics and management majors set up five modules of mixed course teaching: knowledge point preview module, knowledge point consolidation module, knowledge essence module, ability training module and knowledge point summary module to achieve "online and offline mixed" teaching (Table 1). Blended classroom teaching adds a lot of independent learning links and broadens the communication channels between teachers and students. "Online learning" + "offline physical classroom" fully mobilize students' enthusiasm for learning, stimulate their interest in learning, improve their independent learning ability, hands-on practice ability, independent analysis, and problem-solving ability,

Table 1. OBE concept based on the combination of online and offline teaching methods.

Teaching Module	Main Contents	Basic Activities and Expected Results
1. Knowledge preview module	Pre-class task list and teaching case study	Students are supposed to independently complete the pre-class task list, and use the teaching case to trigger thinking about the knowledge point and follow-up questions
2. knowledge consolidation module,	Pre-class task list checking, review the important and difficult knowledge points of the previous lesson	Teachers play the role of supervision and management, and understand the dynamics of students' learning and preview
3. Intensive teaching module	reasonable allocation of teaching time according to the overall performance of the pre-class task list	The teacher will sort out the key and difficult points of the course knowledge and answer students' questions
4. Ability training module	Cases analysis and discussion in context of realistic social environment	Students analyze and discuss the cases together with teachers manage the discussion process and make comments
5. Knowledge summary module	Reorganize the course content and arrange the pre-class task sheet	Teachers summarize important knowledge points and assign follow-up tasks

and constantly improve their comprehensive quality to meet the needs of society and the market.

5) Construction of output evaluation system based on the combination of knowledge achievement degree and practice achievement degree

As an application-oriented major, the society puts forward higher requirements on the practical ability of students majoring in economics and management (Gao, 2022). The cultivation of students should not only focus on the imparting of theoretical knowledge, but also on the comprehensive cultivation of ability and accomplishment. In teaching evaluation, we should pay attention to both knowledge achievement degree and practice achievement degree. In teaching evaluation, teachers should not simply evaluate the degree of knowledge achievement through exams or papers, but should also take the degree of practical achievement as an important aspect of achievement calculation. Aiming at the goal achievement requirements of various courses for practical ability, the multi-dimensional evaluation model of schools, society and enterprises should be built according to the needs of market and industry under the premise of project-driven teaching. Focus on the cultivation of students' comprehensive ability in the process of development, establish a process-based, multi-dimensional and systematic evaluation index system of both schools and enterprises, improve students' comprehensive quality, promote students' all-round development, and lay a good foundation for students' employment and career planning.

4. Talent Training Path Based on the OBE Concept in Applied University Economics and Management Professional

In the process of education reform, the first thing is to identify who to cultivate talents for, so that we can know what kind of talents to cultivate. OBE education concept refers to the use of outcome orientation to develop teaching programs

and guide student development through reverse design. Student-centered and results-oriented, the teaching system should be built and the continuous improvement function should be enhanced to achieve better development. As shown in **Figure 2**, based on the OBE concept, applied economics and management majors determine the talent training objectives by determining the national social needs, market needs, industry development needs, school characteristics positioning and students' own development needs, and realize the talent training objectives by reforming the curriculum system and strengthening students' innovation and practical ability. Finally, through the establishment of results-oriented evaluation system for continuous improvement to achieve a virtuous cycle.

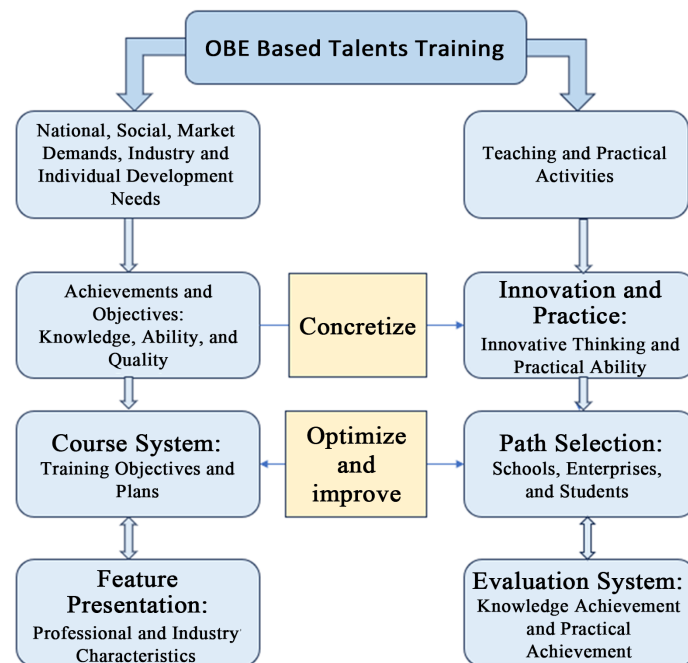


Figure 2. Talents training path based on the OBE concept.

1) Strengthen practical teaching and build a practical platform

With the continuous change of the economic and employment situation, various industries are also constantly adjusting their own strategies and constantly innovating in accordance with the national strategy to better and faster development, economic management professionals not only have a solid foundation of professional knowledge, but also should adapt to the development of The Times innovative thinking. The training plan should formulate a talent training system according to the characteristics of students, majors and industries, and establish a multi-level, multi-directional and multi-type talent evaluation system. Enhance the openness of classroom and the flexibility of outcome evaluation.

The improvement of practical teaching level requires the collaborative development of schools and enterprises, the establishment of practice platforms, and the cultivation of students' practical ability and comprehensive ability. There is a natural connection between enterprises and schools, especially universities with

industrial characteristics. Schools provide enterprises with human resources, and enterprises are the basis for schools to maintain their characteristics. Based on the graduation conditions of economics and management majors and the talents needs of enterprises, the practical teaching and training system reflecting the characteristics of economics and management majors is constructed in combination with the characteristic advantages of universities with industry characteristics, and the application orientation of the talent training system is strengthened by strengthening enterprise cooperation, optimizing practical teaching and evaluation methods, and strengthening the level of practical teachers. At the same time, strengthen the in-depth cooperation between schools and enterprises, let enterprises participate in the formulation of the teaching system, and provide practical teaching environment for schools. In strengthening the cooperation between schools and enterprises to build a practice platform, we should also actively explore a comprehensive talent training system with professional advantages of economics and management, industry characteristics, needs and can adapt to national strategic development, to promote the common good development of the industry, university and students.

2) Strengthen the reform of curriculum system to form industry characteristics

With the development of society and economy, employers have higher and higher requirements for candidates. They not only hope to have a solid professional knowledge base, but also hope to have practical ability and understanding of related industries to realize income conversion as soon as possible. This requires economic and management majors to strengthen the integration of the students' professional knowledge and the school's characteristic professional knowledge when establishing the talent training system to realize the cross-fusion and innovation of knowledge. The development of economic and management majors should meet the major strategic needs of the country, and at the same time, it is necessary to follow its own development law and aim at the characteristic advantages of industrial university disciplines, and strengthen the characteristic orientation of the major to seek better development. Professional teaching knowledge can keep up with the development of enterprises, so that graduates can meet the talent needs of enterprises. At the same time, teachers are sent to enterprises for exchange and learning, and experienced or good business ability are invited to the school to give lectures to improve the practical level of teachers. Economic and management majors can also strengthen the joint training of superior disciplines in the school, and highlight the advantages of economic and management majors in universities with industrial characteristics on the characteristics of traditional liberal arts, to realize the professional training system and enhance the employment competitiveness of students majoring in economic and management in universities with industrial characteristics.

3) Strengthen the construction of evaluation system and clarify demand orientation

The new era, new mission and new requirements must accelerate the high-

quality development of liberal arts education. The construction of new liberal arts leads the comprehensive quality reform of liberal arts education. Colleges and universities should establish quality awareness, promote quality reform, and finally form quality culture to strengthen the training of high-quality talents. To further promote the sustainable, healthy and high-quality development of schools and enterprises, we should vigorously improve the talent evaluation system of economic and management majors. With students as the center, the evaluation system of student graduation tracking evaluation, school teaching quality evaluation and enterprise evaluation should be established to promote the good and sustainable development of the three. At present, the tracking evaluation system of teaching quality in colleges and universities has been formed, but the tracking evaluation system of students' graduation and the evaluation system of employers to graduates has not yet formed a mature and stable evaluation system. And the results of the evaluation have not been well analyzed and fully utilized in the next talent training program. As a university with industry characteristics, it should not only train talents and conduct scientific research, but also serve the industry. Through the establishment of an evaluation system, continuous quality investigation and feedback, and continuous quality improvement, it can achieve the improvement of talent quality and meet the needs of national social development, enterprise talent needs and school development needs.

4) Strengthen teachers team building and collaboration between the enterprise and the school

The training path of applied talents in undergraduate colleges based on OBE concept needs to be based on a mature teaching team. When colleges and universities introduce teachers, they should not only pay attention to their academic qualifications, but also pay attention to their practical ability and innovative ability. Teachers should fully integrate disciplines in teaching, so that students can integrate and innovate knowledge in the learning process, and give full play to the characteristics and advantages of economic and management majors. At the same time, colleges and universities should strengthen the incentive mechanism and strengthen teachers' enthusiasm for practical teaching. Training activities will be carried out for teachers who lack teaching experience and practical experience, and teachers will be encouraged to study in enterprises with pay, and the communication and contact between teachers and relevant personnel in enterprises will be strengthened, to continuously improve the level of teachers and increase the proportion of teachers in the "double-qualified" teachers' team. It is also possible to invite personnel from enterprises to give lectures in the school to strengthen students' understanding and understanding of the profession, which can better improve the quality of applied talents. In addition, in cooperation with enterprises, enterprises are invited to provide students with advanced practical facilities and platforms, as well as supporting advanced practical operation guidance and practical course design, to improve students' practical ability, transport more applied talents for enterprises, and promote the economic and social development of our country.

5. Conclusion

The problem of training economic and management professionals in applied colleges and universities is largely a structural contradiction between supply and demand, that is, what kind of people the society needs and what kind of people the school trains cannot be fully equal. It vigorously promotes the structural reform of the supply side of talent training, and builds a training system for economic and management professionals, which should run through the OBE training concept in the whole process, be student-centered and reverse designed, and continue to improve in the whole process of training. It constructs an output evaluation system based on the training objectives of OBE and “student-centered” concept, a training method that combines general education and personalized training, a teaching process that combines classroom teaching with practice expansion, a teaching method that combines online and offline teaching, and a knowledge achievement degree with practice achievement degree. The paper focused on the training mode aspect, through the construction of practice platform, curriculum system reform, evaluation system construction and teacher team construction, the training mode of economics and management professional in applied colleges and universities based on OBE concept is realized. However, since there are major and course heterogeneities according to different courses in the subjects of economics and management, the paper largely discussed the subjects universally, and detailed work will be focused on the individuality of specific majors and courses.

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Conflicts of Interest

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References

- Gao, Z. (2022). Research and Practice of Curriculum Assessment System Based on OBE Concept. *Computer Age, No. 2*, 107-110.
- Li, J., & Tan, Y. (2017). Application of Results-Oriented Education in Cultivating Core Competence of Law Students. *Journal of Liaoning University of Technology (Social Science Edition), 19*, 120-122.
- Li, Y., & Li, F. (2023). Exploration on the Training Model of Economics and Management Talents with Industry Characteristics in the New Liberal Arts Based on OBE Concept. *Journal of Higher Education, 36*, 148-151. (In Chinese)
- Li, Y., Pan, X., & Wang, E. (2020). Exploration and Practice of Chain Mixed Teaching under OBE Education Concept. *Heilongjiang Education (Theory and Practice), No. 11*, 73-75. (In Chinese)
- Liu, L. (2022). “Student-Centered” OBE-PAD Teaching Model and Practices—The Case of International Business Communication Course. *Open Journal of Social Sciences, 10*, 99-

109. <https://doi.org/10.4236/jss.2022.1010007>
- Liu, L., & Han, Y. (2022). The Reform of Curriculum Assessment System Based on OBE-PAD Concept—The Case of International Business Communication. *Advances in Applied Sociology, 12*, 717-728. <https://doi.org/10.4236/aasoci.2022.1211051>
- Liu, L., & Li, Y. (2022). Teaching Paradigm Reform of Economic and Management Courses Based on the Integration of OBE Concept and PAD Mode. *Advances in Applied Sociology, 12*, 470-483. <https://doi.org/10.4236/aasoci.2022.129036>
- Peng, S., & Li, M. (2018). Construction of General Education Curriculum Teaching and Evaluation System Based on OBE Concept: A Case Study of Tsinghua University. *Higher Engineering Education Research, No. 2*, 129-135.
- Spady, W. G. (1994). *Outcome-Based Education: Critical Issues and Answers*. American Association of School Administrators.
- Sun, C. M., Du, H. M., Li, X., & Shi, Y. H. (2022). Research on the Teaching Mode of Intelligent Control Course Integrating OBE and PAD Concepts. *Higher Engineering Education Research, No. 1*, 157-162.
- Wang, H., Wang, M., & Gong, W. (2021). Construction and Management of Innovation and Entrepreneurship Laboratory in Colleges and Universities Based on OBE Concept. *Experimental Technology and Management, 38*, 278-281. (In Chinese)
- Wang, K., & Li, J. (2019). Design and Research of Mixed Teaching Mode of Economics and Management Courses under OBE Concept. *Modern Education Science, No. 1*, 92-97. (In Chinese)
- Wang, X. (2023). Research on Training System of Applied Undergraduate Design Majors Based on OBE Conception. *Hunan Packaging, No. 8*, 181-184. (In Chinese)
- Xu, X. (2019). Exploration on the Reform of the Training Mode of Economic and Management Talents Based on the OBE Concept. *Modern Education, No. 23*, 40-43. (In Chinese)
- Yu, L. (2023). Exploration on the Training Path of Application-Oriented Talents in Undergraduate Colleges Based on OBE Concept. *Industrial Innovation Research, 20*, 196-198. (In Chinese)
- Yuan, H., Chen, W., Yu, X., Yu, C., & Wang, C. (2019). Reconstruction of Practical Teaching System Based on OBE Principle. *Experimental Technology and Management, 36*, 206-209. (In Chinese)