

Research on Innovative Application-oriented Talent Training Mode in Private Colleges

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Abstract: This paper mainly introduces the innovation of Chengdu Neusoft University as a representative of private schools in the training mode of applied talents. This paper introduces the TOPCARES integrated application-oriented talent training mode of Chengdu Neusoft University from the aspects of the determination of application-oriented talent training objectives, the implementation of application-oriented talent training mode, and the quality assurance system of application-oriented talent training.

1. Introduction

Compared with public universities, private universities still have many gaps in school infrastructure and teachers, but they have more autonomy and flexibility in innovation and training of applied talents.

In October 2015, three ministries and commissions of China jointly issued the Guidelines on Guiding Some local Ordinary Universities to transform into application-oriented universities, proposing to transform some universities into application-oriented ones. In this context, the cultivation of college students' innovative thinking, innovative consciousness, innovative ability and application ability has become the basic requirements of various colleges and universities' talent training, and the optimization of innovative application-oriented talent training mode has become the key problem to be urgently solved in college talent training.^[1]

Applied talents refer to those specialized talents who have mastered the basic knowledge and skills of social production or social activities, and can apply their professional knowledge and skills to professional social practice. The basic quality characteristics of the college students are diversified knowledge structure, profound technical ability, strong sense of social responsibility, critical spirit and multi-innovative research consciousness.^[2]

2. Chengdu Neusoft University TOPCARES Integrated Application-oriented Talent Training Model

As the president unit of the Private Education Association, Chengdu Neusoft University, adhering to the school philosophy of "Education creates student value", drawing on the achievements of international engineering education reform, creatively proposes and builds the TOPCARES integrated application-oriented talent training model. TOPCARES is an acronym of eight Level 1 core competency indicators to be developed, including 32 Level 2 competency indicators and 110 Level 3 competency indicators. TOPCARES integrated application-oriented talent training model emphasizes students' learning for results, teaching and learning process interaction and continuous improvement.

Outcome Based Education Education concept, also known as results-oriented Education, goal-oriented Education, ability-oriented Education or demand-oriented Education. OBE is an advanced educational concept of the results-oriented, student-oriented and reverse thinking

curriculum system.

TOPCARES integrated application-oriented talent training model is consistent with the basic philosophy of OBE, which emphasizes student-centered, goal-oriented student development. TOPCARES ability index not only focuses on the development of students' professional knowledge and ability, but also attaches importance to the development of communication and expression, teamwork, innovation and entrepreneurship.

3. Determination of the Training Objectives for Application-oriented Talents in Chengdu Neusoft University

Chengdu Neusoft University, on the basis of full research on the needs of social stakeholders such as enterprises, students, teachers and similar universities, has defined the talent training goal of "To cultivate high-quality application-oriented professionals with firm ideals and beliefs, a sense of social responsibility, innovative spirit, international vision and strong practical ability". The training target of talent training program for each major based on the basis of TOPCARES index system to extract the professional talent training ability index, and form the mapping table of TOPCARES ability indicators to the talent cultivation goals of each specialty, so as to determine the talent cultivation goals and cultivation specifications of each specialty.

From the vision and mission of the university, to the talent training objectives of each major, and then to the teaching objectives of the course, a progressive training objective system has been formed. The personnel training goal of each major is the further decomposition of the college's vision and mission, and the teaching goal of each course is the further decomposition of the personnel training goal of each major.

TOPCARES indicators not only improve the professional talent cultivation goals and curriculum outline, but also improve the teaching materials, classes and projects, which is also called the "Five Goals" project. In this way, the ability indicators are decomposed into various teaching links to achieve the comprehensive development of knowledge, ability and literacy.

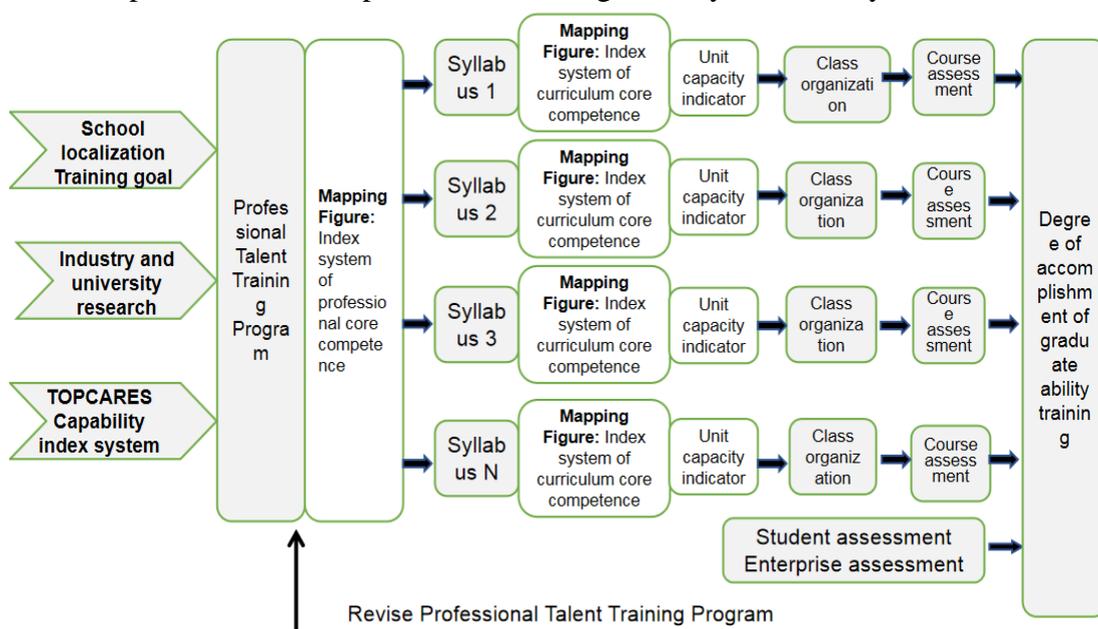


Figure 1 Chengdu Neusoft University TOPCARES Integrated application-oriented talent training model.

4. Implementation of the Training Objectives for Application-oriented Talents in Chengdu Neusoft University

Chengdu Neusoft University innovates the application-oriented talent training mode among private colleges, mainly in the following aspects:

The curriculum system is set up according to the graduation requirements that students are expected to meet: the graduation requirements include knowledge, ability and quality requirements. The talents training goal of the school will (graduation requirements) decomposition to the professional, the professional personnel training goal decomposition to each professional course, core curriculum ability index decomposition to each individual unit, each unit to determine the teaching content and teaching method the whole course system is to graduate graduation requirements in the project of talent fostering professional ability index system of ability index set, Course design changes from forward design to reverse derivation.

Project-based integrated curriculum system: According to the training objectives of professional ability, the "Five levels project" system is implemented respectively. Chengdu Neusoft University has redesigned the structure, content and order of the curriculum system of each major, and constructed an integrated curriculum system that is competence-oriented, five-level projects and dynamic content renewal.

The first-level project is the professional guidance lesson and comprehensive practical training of each major, the second-level project is the practical training project of the curriculum group, the third-level project is the curriculum project, the fourth-level project is the curriculum unit group project, and the fifth-level project is the curriculum unit project. In each project, students learn in a team way, cultivating creativity, practical skills and teamwork skills.

Student-centered classroom organization: improve teaching methods, highlight students' participation in the teaching process, focus on the cultivation of practical and application abilities, motivate students to take the initiative in learning, and improve learning efficiency.

Curriculum assessment focuses on students' learning results: Assessment methods are diversified, changing the previous single examination-oriented assessment method, and assessing students' learning effects of knowledge, ability and quality from various aspects. Write a course summary at the end of each course and analyze the achievement of the TOPCARES ability indicators of the course.

Semester setting pays attention to the cultivation of students' application ability: Chengdu Neusoft University implements the "1321" semester setting, that is, one academic year is divided into 3 semesters, 2 theory semesters and 1 practice semester. In the theory semester, each course takes the project as the teaching carrier, carries out the study based on the project and case, and emphasizes the theory teaching of "intensive teaching and more practice". Practice semester is also called "primary school period", which takes projects as the carrier, carries out practice project training in the way of concentrated ability training, and emphasizes "advanced practice oriented to industry application" teaching. The teaching implementation of "1321" reflects the engineering education thought of "learning by doing" and "learning by doing", highlighting the cultivation of practical ability of applied talents.

The academic year set pay attention to the cultivation of the students application ability: chengdu neusoft institute for "3 + 1" teaching mode: students in the school, according to the teaching plan of professional finish after 3 years of professional course study, 4 years by practical projects focus on professional comprehensive practice and graduation practice, cultivating applied talents to meet the needs of enterprises and market. Concentrated practice links fully consider the ladder of learning, the first semester set up basic ability training, the second semester set up professional ability training, the third semester set up comprehensive ability training, the fourth semester set up project training and other courses.

Practice teaching system to enhance the training of students' application ability: centralized practice and other links are basically equipped with both school and enterprise tutors. Through in-depth cooperation between schools and enterprises, a practical environment based on industry background is constructed, and three-dimensional teaching resources and practical teaching systems such as experiment, practical training, internship and social practice are combined to strengthen the cultivation of students' application ability.

"Eight Synergies" integrated education and production mechanism: Chengdu neusoft institute and with the sponsors, enterprise, partners, preliminary build up together determine the training

objectives, collaborative system (repair) reserve talents scheme, collaborative design courses, collaborative design project, coordinate the implementation of teaching, cooperative guidance coordinated development of teaching materials, practical training and promote students employment "eight synergy" fusion education system, education industry-university-institute cooperation achieved initial results.

5. Problems and Countermeasures of Application-oriented Talents Training in Private Colleges and Universities

(1) Asymmetry between talent cultivation mode and professional talent demand. Many private colleges and universities lack of targeted and targeted specialty, lack of talent training for regional economic construction. Some schools cannot adjust measures to local conditions, blindly set up new majors, resulting in the lack of targeted employment of graduates. The talent cultivation program of Chengdu Neusoft University is revised according to the "ten-step method", and the achievement degree of demand goals is analyzed and evaluated based on TOPCARES indicator system.^[3]

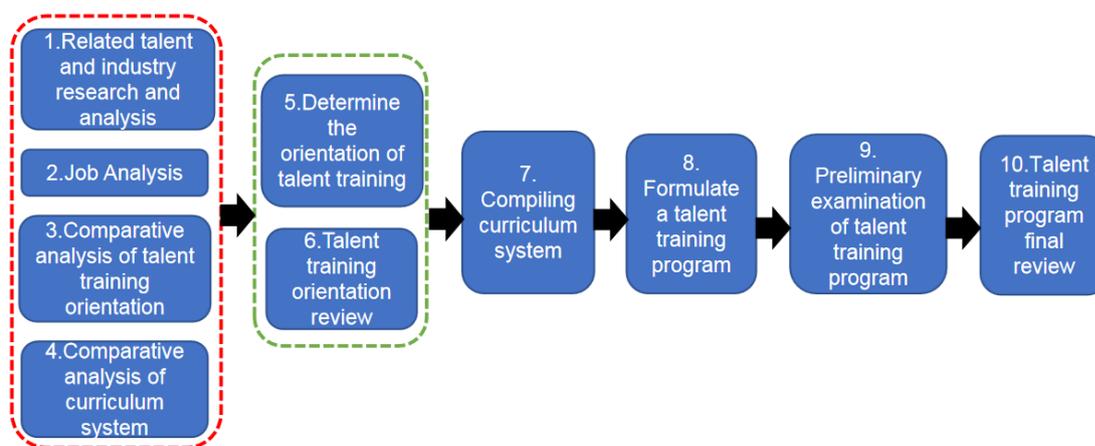


Figure 2 Talent training program plan of chengdu neusoft university "ten-step method".

(2) The statistics of the goal achievement degree of talent training mode are not clear. After the professional talent training goal is determined, whether each course has completed its own training goal, whether each major has completed its training goal, whether all stakeholders are satisfied with the training effect, and whether the achievement degree of training goal is not clear statistics, it is impossible to complete the evaluation of the achievement degree of training goal. Chengdu Neusoft University adopts the OBE education concept and sets the professional talent cultivation goal based on TOPCARES index system. At the end of each semester, the achievement degree of the course index is counted according to the course standard index. After students complete all courses, the achievement degree of the students' university learning goal is counted according to the talent cultivation program index system.

(3) Improve teaching through the evaluation of students' learning achievements: collect output related information through course questionnaire, graduate follow-up survey, industry survey, employer enterprise survey and other methods, and compare with talent training objectives. Form a continuous improvement mechanism through evaluation, tracking, feedback and improvement. Teaching evaluation changes from quality monitoring to continuous improvement, so that teaching quality management forms a PDCA closed loop, training objectives, graduation requirements, continuous improvement of teaching activities. At the same time, through questionnaires and other surveys of students and employers to understand their satisfaction. Through the statistics and analysis of various data, the goal of talent training program will be further improved to complete the whole closed loop.

(4) The process quality assurance system of talent cultivation mode is not sound. Many private colleges and universities lack supervision over the process of talent cultivation. Chengdu neusoft institute of development for reference in teaching quality management, PDCA teaching

management idea and method, established 12 key link quality standards, preliminary constructed the "six eight heavy" teaching quality guarantee system, the main links and factors affecting the quality of personnel training to implement process monitoring, strengthening teachers' summary and evaluation of student learning. The University has a Teaching quality Management and Security Department. Each school has a vice dean in charge of quality, who is responsible for the operation and management of the school's teaching quality assurance system, teaching quality monitoring and internal self-assessment. (" six things ": there are goals, standards, monitoring, evaluation, feedback and improvement; "Eight" : routine inspection, teaching supervision, leading cadres, leadership consultation, student feedback, special inspection, special evaluation, external feedback.

Acknowledgement

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References

- [1] Wu Qiaohui, *“Research and Practice of Application-oriented Undergraduate Talent Training Mode”* [M], China Light Industry Press, ISBN:787501981199, 2011-01-01.
- [2] Zhang Haibo, *“Research and Practice of Application-oriented Talents Training Mode of E-commerce major in Private Undergraduate Universities”*[J], Journal of Sichuan University for Nationalities, 201,30(03), 46-50.
- [3] Lei Xiaobin, Li Na, *“Design and Exploration of Application-oriented Talents Training Scheme in Newly-built Undergraduate Universities: Taking Sichuan Technology and Business University as an example ”*[J].Journal of Panzhihua University. 2017(03).