

# Elements of the Restructuring and Development of Local Colleges and Universities

-----A Case Study of Yangtze University College of Engineering and Technology

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**Abstract**—In this paper, an integrated research approach proposed restructuring and development of local colleges and universities is the trend point of view, discusses the core elements of the restructuring and development of the local colleges and universities, educational philosophy that is in transition, professional development transformation, transition training programs, training paths transformation, teachers restructuring, the conclusion is restructuring and development of local colleges and universities must adapt to the oil industry and regional economic development patterns and social transformation required under the new norm, the application of technology to cultivate high quality talents.

**Key words**—Local colleges and universities; Restructuring and development; Professional adjustment; Production Religions

Local colleges and universities transformation and development of the core elements of the restructuring include educational philosophy, professional development transformation, transition training programs, train teachers transformation and restructuring path. How do the restructuring and development of the core elements of this paper Yangtze University College of Engineering and Technology, for example, to do a specific analysis.

## I. UPDATE THE EDUCATIONAL PHILOSOPHY, A CLEAR SERVICE ORIENTATION

Local colleges and universities transformation and development, we must establish adapt industry and regional economic development, culture school of thought applied technology talents, therefore, to establish and strengthen the following concepts:

Student-centered philosophy. According to the law student growth and success and career development needs, provide a good learning and living conditions, and create a student autonomy, self-reliance, self-improvement, to take the initiative of campus cultural space and atmosphere.

Application-oriented philosophy. To adapt to the oil industry and local economic development patterns and social transformation needs of application-oriented talents, and full integration into the regional economic development and industrial transformation and upgrading process, assume provide personnel support for regional economic and social development of an important mission, training to adapt to the local economy and the oil industry needs to master new technology, with highly skilled technical personnel applications.

Religions production concept. School-enterprise cooperation, capacity to teach integration, mutual support

and coordinated development. Active service local schools and industry, so that personnel training closer to local economic development; professional construction close to the local industrial reality; teachers' research closer to local development needs, the formation of production interactive teaching, production and research of complementary, win-win cooperation capacity Religions pattern.

## II. BASED ON THE ORIGIN OF DEVELOPMENT, ADJUST PROFESSIONAL STRUCTURE

To improve the fit of the professional structure and industrial structure. Industrial structure is evolving, the professional structure of the school should change with the adjustment of industrial structure and, for the regional leading industry professional settings, but according to the post types, set different professional direction, in order to meet the industry demand for talent.

"Hubei strategic emerging industries" five "plan" put forward "five-second" period, the province's industrial structure optimization, the advantages of the development of the next generation of information technology industry scale, high-end equipment manufacturing, new materials, improved significantly core competitiveness; biological, environmental protection and other special industries across the development, the formation of a new pillar of emerging industries; new energy, new energy vehicles and other potential industry ahead of development and building a new growth pole. Build strategic emerging industry development, and manufacturing base in the country with the characteristics and influence. Jingzhou City Planning "Twelve Five" period, average annual growth of strategic emerging industry for more than 25%, the emerging industry output value exceeded 100 billion yuan. By 2020, biotechnology, new materials, energy saving and environmental protection industry into the city's three major economic pillar industries; new generation information technology, high-end equipment manufacturing, new energy vehicles, new energy industry into the city's four major economic leading industry.

The implementation of professional transformation project, run around the industry professional, to build a professional group of the regional leading industry chain, specialty chain and strategic development of new industries, to achieve "professional chain and industrial chain" clusters butt in school organization and teaching process, the formation of "Tuition, academic, career" optimal allocation of resources, the students into the oil

industry and the local regional production, construction, management, service line of high-level applications and technical personnel, to achieve seamless graduation and employment, graduation and entrepreneurship Running distance transition effects.

*A. Professional accelerate the pace of transformation.*

According to "level positioning accuracy, advanced training model, professional and distinctive features, superior quality talent," the professional building ideas, according to the oil industry and regional industrial development needs, concise professional direction, optimize the professional structure, foster professional characteristics. According to regional economic needs, focusing on the development of the real economy, strategic emerging industries, modern services related to the shortage of professional, actively cultivate "new professional direction + characteristics" to promote the professional development of the application, the characteristics of the transition, mediation tired of some of the social needs old professional, strong development potential bid for some of the better employment prospects and new professional, prompting the professional to achieve enrollment students do strong, excellent quality of education graduates in the job market sought-after healthy development of the state.

*B. Specialty improve integration.*

In accordance with the principle of a high level, high starting point, high demand for petroleum, chemical, information, machinery, construction, paper tube six professional (clusters) were carefully integrated, professional development scale, personnel training programs, dual-qualified teachers construction, experimental aspects of practice base construction and production were careful to teach the fusion mechanism design, to develop specific measures to implement construction tasks. In capital investment, enrollment targets, teachers introduce cultivation, inclined to declare a new professional, educational and other aspects of the allocation of resources to professionals (clusters), so distinctive, majors obvious advantages of integration more than 40%.

*C. Specialty improve integration.*

According to the theory enough, focusing on the application of ideas to promote the curriculum transformation. Organization of teachers and engineering and technical personnel cooperation, new knowledge enterprises, new skills, new techniques, new methods introduced to rewrite the application of technical materials, including experimental practical training materials, publishing a number of characteristics of materials, application technology Ability forming materials system. Strengthen the curricular construction efforts, enormous quantity of basic courses and professional core courses, college level courses must be completed or quality courses, provincial quality courses for project construction. Professional (clusters) should aim at the professional core skills, application orientation, special factors, the completion of the distinctive characteristics of the professional core curriculum.

III. FOCUS ON APPLICATION OF TECHNOLOGY, RECONSTRUCTION TRAINING PROGRAM.

Enterprises involved in adjusting and optimizing the school personnel training programs, participation in research and development of professional courses, schools and businesses, industry to establish a close and substantial joint training mechanisms and models to achieve training objectives with corporate employment standards convergence.

*A. Ways to Foster transformation.*

According to adapt to the needs of society to adapt to the characteristics of students in law schools, and adhering to the application-based, skills-oriented, unique purpose, and foster the development of students adapt Advantage educational philosophy, the practice of educating people the way school-enterprise cooperation, to build both theory and practice curriculum, train oil industry and regional economic and social development needs of the "front-line engineers," "line economist", "front-line management division."

*B. Training mode transformation.*

According to professional characteristics and actual needs of enterprises, to take "Working and Learning Alternation + three semesters a year", "Engineering Education + project-driven" and other methods to achieve the theoretical classroom learning and practice of alternating production, to ensure that students' practical skills and application culture; take "1.5 + 1.5 + 1 mode", "2 + 1 + 1 mode", will be divided into three stages of four-year undergraduate students in the culture, the first stage is 1.5 or 2 years, as a basis for learning stage the second phase 1.5 or 1 year for students of professional system training, the last year as a professional practice and into the enterprise involved in the project implementation phase.

*C. Transformation of teaching content and teaching methods*

Teachers according to the applied technology personnel training requirements, timely new technology-related industries, new materials, new technology, new ideas and so the introduction of teaching content. Encourage teachers and technical personnel of enterprises to study and solve the problem of production practice, the development of new curricula, textbooks, handouts. To produce practical needs of technology, service, the principles, methods, processes for the carrier to design the course content, organization and teaching activities, the use of team learning, case studies, simulation training and other methods to achieve the integration of curricular and extra-curricular culture.

Comprehensively promote heuristic, discussion, case teaching, teaching methods and other project-driven. To develop skills, improve quality, strive to enrich the lives of as the goal, vigorously carry out the second classroom special events.

#### IV. PROMOTE THE INTEGRATION OF PRODUCTION WITH TEACHING, DEEPEN COOPERATION IN RUNNING SCHOOLS

##### A. *platform to build a comprehensive industry-university cooperation, the establishment of a new mechanism for integration of industry-academia.*

Academy will further integrate resources, and Jingzhou city government and the national economic and technological development alliance between government and enterprises to build schools, close relationship between schools and government departments to strengthen cooperation within the school and Jingzhou Economic and Technological Development Zone of each enterprise. The formation of school-enterprise cooperation council, set up under the Board of Education cooperation, development cooperation committee, set up schools and enterprises to build a large platform, all professional (clusters) All substantive cooperation agreement signed with the enterprise, the establishment of the Council, a professional steering committee formed school-enterprise cooperation Running a good pattern.

##### B. *teaching reform experiment carried out jointly explore new fostering talent model.*

###### 1) *Order Training Mode.*

Professional (clusters) of enterprises should be based on the actual needs of development and personnel, carry out personnel training mode reform experiment, offering classes school-enterprise cooperation, the establishment of order training mode, explore order training mechanism. Make full use of school resources, teaching resources and business practices, to develop joint research training program, implement bilateral participation, counterparts culture, common education. Business and technical personnel in teaching and training process, both to the students' knowledge and skills, but also to teach students of corporate culture, guide students to combine theory and practice, the life and work fit together, so professional and industrial docking, academic China Unicom and occupation, training and employment integration, enterprises can not only solve the problem of talent to recruit desirable, but also solve the problem of student employment, real businesses, schools and students win.

###### 2) *Apprenticeship model.*

Through school-enterprise cooperation, cognitive practice, production practice, graduation practice, graduation design companies to do the practical aspects are placed, the enterprise as a trainee teacher students with practical guidance, formed one to one mentoring relationship, student internships accepted professional practice training base, the theoretical knowledge into practice among, but also improve their knowledge structure, in practice, improve their professional skills, to achieve a smooth transition to the workplace, and for the smooth entry and check knowledge from student status, technology readiness skills and mentality.

###### 3) *Internships mode.*

In the internship process, the "fixed term period", a "distributed dual process" model of teaching arrangements to ensure effective convergence of production and post

teaching of students. Enterprises as students as "employee", schools, businesses double mentors to guide students together. Hire technical personnel of enterprises as a student of professional instructors, guide based learning and professional practice of students, teaching courses related to professional applications, enhanced practicality and effectiveness of teaching. Students research through innovation and entrepreneurship, training school-enterprise cooperation projects, students of innovation and entrepreneurial abilities.

#### V. TRAINING RECRUITS CITED A COMBINATION OF BUILDING DOUBLE-QUALIFIED TEAM

##### A. *broaden the introduction of channels, improve the structure of teachers.*

college will implement dual-qualified teachers construction, actively carry talent introduction and training, in an effort to build a higher theoretical level of both, there are strong practical ability of the "Double" teachers. To the backbone of teachers professional as the core, focusing on the shortage of teachers, follow lean and efficient, with a reasonable principle, take special combination to spot the main road, through the introduction of the shortage of teachers, complementary skills, teachers, improve the structure of teachers, expanded faculty, improve the quality of teachers.

##### B. *Introduction of part-time teachers, enhance teacher ratio double.*

College will take "Please come in and go" approach, has extensive practical experience and actively engage experts or professional and technical personnel as a part-time teacher, and with the signing of an employment contract, provide the working conditions, give full play to the leading role of part-time teachers, and promote faculty transition to a dual-qualified.

##### C. *internal potential, promote teacher transformation.*

First, send young teachers on a regular basis to the production, management first-line testing exercise, the accumulation of practical experience, so that theory and practice. Encourage teachers to acquire vocational qualification certificate or technical grade certificate. Second, young teachers to arrange production enterprises for professional training. Through professional practice, enhance understanding of teachers' professional development trends, enhance the ability of engineering practice to master technical skills. Third, strengthen practice teaching hospital, improve teachers' professional practice skills.

##### D. *Establish incentives, teachers play potential.*

Multi-channel, sub-level, comprehensive platform to build the training of young teachers, high standards and strict requirements, more initiatives to pay close attention to the quality of teaching management, planned, step by step to optimize environment for the growth of young teachers. Selection system established outstanding young teachers, young teachers in the establishment of the Fund,

the practice of young teachers fund to encourage young teachers to further their studies and to business practices in the allowance, performance appraisal, job promotion, Titles Evaluation, pay cut, etc., on the "double teachers" favorable policies.

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