

Research on Revision of Training Program of the Economics and Management Specialties Based on the Training Mode--- A Case Study from Changchun University of Science and Technology

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Abstract

With China's economic development and international competition intensifications, the society requires for talents from number requirements into the quality requirements, especially. Complex and high-class trend of modern industrial development demands compound talents. There are eight majors in college of the economics and management in Changchun University of Science and Technology, so it is an urgent for the university how to cultivate compound talents of high-quality. In September 2012, new "University undergraduate course catalog" and "University Undergraduates professional setting regulations" issued by the Ministry of Education of the People's Republic of China require all universities to amend the training programs to further promote the reform of education. To some extent, the quality of talent training is determined by talent training model. In view of this, the training program revision is discussed in the paper. By Surveying universities and enterprises, based on needs of local economic and social development, considering university conditions, cultivating complex talent as a basic orientation, three-dimensional training model is constructed that merge imparting knowledge, culturing capacity, improving quality. The following aspects are included to revise training program: professional orientation and characteristics of training objectives, training standard, curriculum systems (theoretical teaching systems and practice teaching systems).

Keywords: Talent training mode, Economics and Management Specialties, Talent training program

1. Introduction

In September 2012, the Ministry of Education the Ministry of Education of the People's Republic of China formally promulgated and implemented the new "University Undergraduate Catalog" and "University undergraduate settings management rule" which require all universities and colleges to amend the professional training programs to further promote educational reform. The premise to revise training program is to define talent training mode. Talent training mode is an important manifestation of competitiveness. With the economic and social development, the intersection, penetration and integration among disciplines become more extensive and deeper. A large number of new problems that are emerging in the social development can be solved by relying on integrated multidisciplinary, multi-technology applications, not only technology combination, but also arts penetration. Universities only reform the existing training mode, cultivate training talent to adapt to social needs which meet the needs of modern economic development.

Different types of colleges and universities should train different types of talents, and different types of professional talent training need different specifications. Changchun University of Science and Technology is the key institute of higher learning in Jilin Province, which is comprehensive university of teaching and research whose characteristic is photovoltaic technology, whose Superiority is to combine optical, mechanical, electrical, calculating, engineering, science, culture, economics, management, law, arts coordinately. The school of economics and management of Changchun University of science and technology is new adjustment school after Changchun University of Science and technology was renamed in August 2002 which was founded in 1980, which has eight economic and management specialties including economics, international trade, financial engineering, business administration, marketing, information management and information systems, accounting, financial management. The training

program has been revised twice in 2003 and 2007 in the 21st century. The situations have changed, so it is necessary to revise the training program. The society needs compound talents, so the university decides to reform the training program. We can make use of experiences and advantages in education of Changchun University of Science and Technology, especially engineering backgrounds in order to cultivate complex talent of certain advantages and characteristics which are discussed in the paper.

2. Related concepts

Complex talent means to have two (or more, but is generally two) basic knowledge and the ability professional (or subjects) talent, also called as comprehensive talent and cross talents.

Training model is the school for students to build the knowledge, ability and quality structure, and the way to achieve this structure, which stipulate fundamental characteristic of talent and focus on reflecting the educational theories and concepts, including philosophy of education, training target, training process, training systems, training evaluation.

Talent training programs are specific and practical form of the training objectives and specifications, the central link to achieve training objectives and training specifications. Specifically, the talent training program refers to the process of the implementation of talent education, guidance by modern educational theory and thinking, in accordance with the specific training objectives and talent specifications, in the way of relatively stable teaching contents and curriculum system, management systems and assessment methods. It should be based on social needs, university itself conditions and training Standards.

3. To establish training mode of compound talents

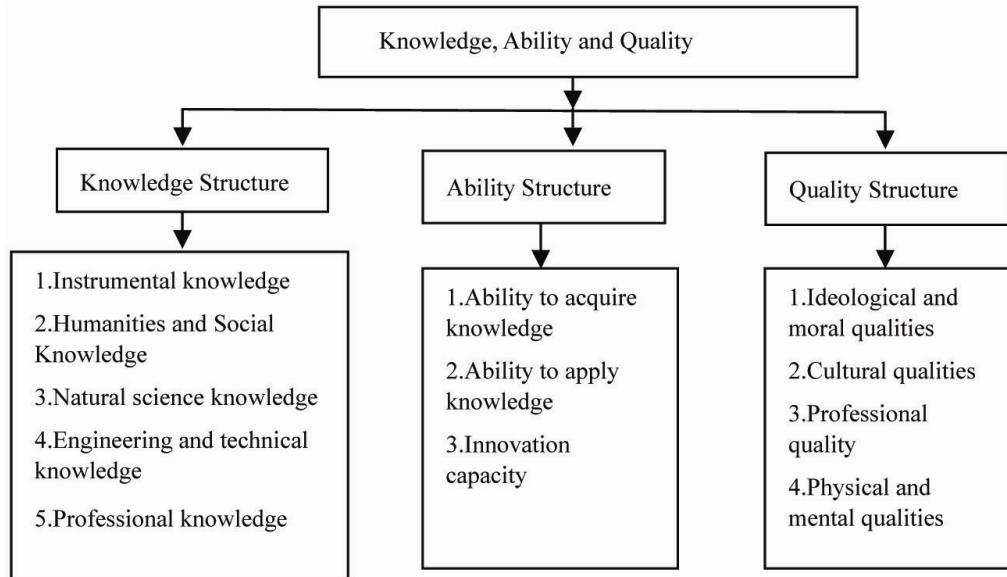
The main features of compound talent possess solid basis, broad knowledge, better ability to utilize knowledge, comprehensive quality, scientific innovation. The essence of training mode of compound talents is to break strict boundaries of different disciplines, so that students can come into contact and learn about different areas of knowledge and thinking method from different disciplines. To cultivate talent emphasis on learning the basics, at the same time emphasizing the broadness of knowledge and diversity of the disciplines, mainly integration of various types of knowledge. Complex talent has a strong ability to adapt and resilience. To cultivate compound talents new requirements and higher standards have made in the knowledge structure, ability structure, the quality structure. The compound talents has not only knowledge, but also capacity and the quality to take full advantage of the knowledge and capacity, which should be organically integrated in one person that requires compound talents owns four characteristics of solid foundation, broad knowledge, high ability and quality.

It is necessary for the university and college to sum up the advantages and disadvantages, at the same time learn from talent training experience of the other institutions, under the support and lead of the Academic Affairs Office, the top universities was conducted research in China, such as Peking University, Tsinghua University, Beijing Jiaotong University, Northeast Forest University, XiaMen University, Central University of Finance and Economics, Capital University of Economics and Business, while universities and corporations to conduct research in Jilin Province, for example Jilin University, Northeast Normal University, Changchun University, Jilin University of Finance and Economics, Changchun University of Technology. Finally the development position, strengths and weaknesses of the economics and management specialties are clarified in country and Jilin Province, contrast to of the other universities. Because ChangChun University of Science and Technology is located in JiLin Province, which economic development lag behind, so the management and economics specialties rank behind contrast to the whole country. Comparative results are as follows, seen table 1.

Table 1. Summary on Features of Economics and Management Specialties in Some Universities

Features of talents training mode	Universities
Internationalization	Tsinghua University, Peking university
Specialization	XiaMen University, Central University of Finance and Economics
Theoretical	JinLin University, NanKai University, Northeast Normal University
Industry-based	Northeast Forest University, Beijing Jiaotong University
Application – oriented	Capital University of Economics and Business ,Jilin University of Finance and Economics, Changchun University of Technology, Changchun University of Technology

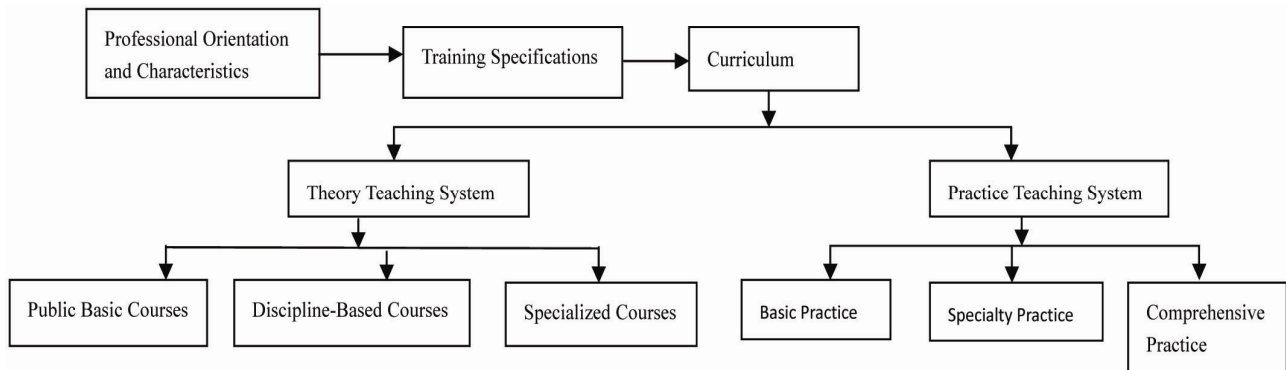
We conduct research on some corporations and some graduates, for example, YaTai Group, CNGC JiLin DongGuang Corporation, UFIDA Software Co.Ltd, ZhongRui YueHua Certified Public Accountants Co.ltd, China North Industries Group Corporation, Industrial and Commercial Bank of China Limited, Bank of Communication, China Construction Bank, Agricultural Bank of China, some administrative units ,institutions, and so on. The units demands compound talents of capacity who apply the knowledge. To cultivate compound talent as a basic orientation, three-dimensional model of “impart knowledge, build capacity, improve quality” is built. The contents of knowledge Structure are instrumental knowledge, humanities and social knowledge, natural science knowledge, engineering and technical knowledge, Professional knowledge; Ability structure includes ability to acquire knowledge, ability to apply knowledge, innovation capacity; Quality Structure is made up of ideological and moral qualities, cultural qualities, professional qualities, physical and mental qualities. Seen figure1.



Figures 1. the contents of knowledge, capacity, quality in training program

4. The revision of training program

The cultivation needs of the discipline and characteristics of the university should be considered in the he revision of training program of economics and management specialties. The talent training program will be revised according to the complex of talent training model, striving to form the style and philosophy, so as to enhance market resilience in the professional education, in the increasingly fierce competition market to seek a place , and shape the characteristics at different levels and different areas, indisputable the first class. Rely on science and engineering backgrounds and advantages of optical, mechanical, electrical, in order to cultivate compound talent, training program will be revised according to the following aspects: professional orientation and characteristics of training objectives, training specifications, curriculum (theory and practice teaching system). Theory Teaching system includes public basic courses; Practice teaching system includes basic practice, specialty practice, comprehensive practice. Seen Figure 2.



Figures 2. revision contents of the talent training program

4.1 professional orientation, training objectives and characteristics

Based on the photovoltaic technology, machinery manufacturing, electronic information and other advantages of discipline, focus on the effect and application of mathematics, foreign languages, machinery, computers, mathematics and other knowledge of disciplines on economics and management specialties, relying on management science and engineering and other key disciplines, combined with the inherent law of the professional development of economics and management, insisted on the integration of professional knowledge and practical application, and knowledge teaching and quality cultivation. The training objectives of "solid foundation, strong practice, the rich characteristics" of economics and management specialty is established: proficiency with computer applications and a variety of specialized software, higher English level and the practical work ability, and professional ethics and social responsibility of high-level, complex expertise of economics and management. In addition, it is necessary for students to understand the frontier of technology of discipline and development trends, to broaden their horizons. In the teaching the core profession curriculum should be highlighted, specialized knowledge must be acquired by students. On this basis, the implementation of cross-professional electives courses to broaden professional knowledge, namely mutually different professions students select courses studied to expand the scope of electives. For example, according to the needs of society and the professional advantages of the university, students may enroll in part of professional courses of computer professional, combined with the knowledge of accounting major, training accounting talent of various computerized accounting software development and theoretical studies of the secondary development; the students of financial management specialty can select machinery and other professional courses, training asset valuation talent; business administration may choose courses of mechanical, training personnel of operational management and control of the direction; Information management and information system can complex with mechanical engineering; International Trade can complex with foreign; economic professional can complex with law; financial management specialty can complex with financial engineering, mechanical, computer science, which reflect characteristics of complex.

In the process to formulate the training program, needs for the talent of the enterprises, especially manufacturing enterprises is analysed, at the same time enterprises are invited to participate in training program. In the professional services, talents are cultivated in order to serve the local economy and national defense economy, mainly the northeast old industrial base of manufacturing and munitions factories.

4.2 Training Standards

Economics and management specialties belong to class of economics (including economics, financial engineering, international economy and trade) and class of management(including information management and information systems, business administration, marketing, accounting professional, financial management).according to the content of the Higher Education Publishing House of the "University undergraduate course catalog and professional presentation" (2012) and other factors training specifications of the eight economics and management specialties are summed up:

Students mainly study the basic theory and basic knowledge of economics, management, to accept the methods and skills of economics, management, with capacity of analyzing and solving the basic problems of economic and management.

Students should acquire the following knowledge and abilities:

- 1) To grasp the basic theory and basic knowledge of economics, management science;
- 2) To master the basic theory, basic methods and basic skills of economics and management specialty;
- 3) Be familiar with economic and management principles, policies and regulations of domestic and foreign;
- 4) To possess the ability of language expression, interpersonal communication, access to information and the basic capabilities to analyze and solve practical problems in the economic and management;
- 5) To understand the theoretical frontier and developments of the discipline;
- 6) To master the basic method of the literature search, data enquiry, possess the ability of scientific research and practical work.

4.3 Curriculum

Curriculum reform is a major foothold for talent training mode, also emphasis and difficulty of teaching reform. Course structure system settings and optimization is the core part of talent training program which relates to the quality of talent training.

The following refers to the principle to set the Curriculum. Establishment interaction mechanism the of universities and employers, jointly study requirements of knowledge, ability and quality for talent development of the industry. The needs of development of the industry and business organically are embedded into course contents, to strengthen cooperation of the school-grounds, school-enterprise, school-school. According to the different needs of society for talent, curriculum should be reformed, breaking boundaries of discipline, professional, curriculum, enhancing the integration, penetration between arts and technology to cultivate talents, to meet the social needs for different talent, so the universities can achieve functions of services for the local economic and social development Streamlining hours, directions concise, public basic courses, academic foundation courses, specialized courses and elective courses, practical training and innovation credits will be set. According to characteristics of University, elective courses will be set to deepen science background, engineering background, cultural background. Courses will be flexibly set in the seventh semester, to arrange some lecture courses or some comprehensive courses, so that students can learn some knowledge, at the same time does not affect the student employment and other test.

4.3.1 Public Basic Courses

The public basic courses are made up of the ideological and political course, foreign language, science, military and sports, basic computer courses, including compulsory and elective courses, Mainly to cultivate ideological and abstract logical thinking and judgment analysis for students, which belong to a large platform courses for economics and management specialties. Ideological and political courses are made up of the ideological and political course ideological and moral cultivation and legal basis, Chinese history, the basic principles of Marxism, principles of political economy, Mao Zedong Thought and Introduction to the theoretical system of socialism with Chinese characteristics, the situation and policies. The course of foreign language includes foreign language mainly, open four semesters. Natural sciences courses include mathematics IV, higher mathematics V, mathematical experiments, linear algebra, probability theory and mathematical statistics III, University Physics III. CISM courses include sports and military theory, open four semesters. The courses of the basic computer include university basic computer I, database technology and applications, computer experiment II. As the major of financial engineering, information management and information system requirements in mathematics differs from other six specialties, therefore higher mathematics open 192 hours; in addition, majors of accounting, financial management, business administration open physics courses.

The elective courses refer to some quality education lessons, which require students to choose four lessons, no less than six credits.

4.3.2 Discipline-based courses

The discipline-based courses focus on to infiltrated knowledge of various disciplines, and reflect design requirements of the wide caliber. The creation of discipline-based courses is the basic course linked to the professional knowledge and skills directly. According to the content of Higher Education Publishing House "University undergraduate course catalog and professional presentation" (2012), combined with other requirements economics and management specialties will open microeconomics, macroeconomics, management, accounting, statistics and other courses, which belong to small platform courses of the eight specialties of economics and management.

4.3.3 Specialized courses

The specialized course should meet the demands of professional knowledge and skills, taking into account needs of the students' different interests, different employment orientation. The specialized courses include professional compulsory and electives courses. The specialized compulsory courses include some core courses. The core courses of major of economics include political economics, econometrics, finance, monetary and financial science, economic history, history of economic thought. The core courses of major of financial engineering include: financial derivatives, money and banking, risk management, econometrics, mathematical finance, public finance, investment banking practice, corporate finance, financial statement analysis. The core courses of major of International economics and trade include political economics, economics, international economics, money and banking, econometrics, finance. The core courses of major of Information Management and Information Systems include operations research, management information systems, management statistics, information resource management, information systems analysis and design, data structures and databases, computer network infrastructure. The core courses of major of Business Administration include financial management, marketing, human resource management, strategic management, production and operations management, management information systems. The core courses of major of marketing include marketing, consumer behavior, market research, sales management, advertising, international marketing, business negotiation, e-commerce, Internet marketing, logistics management. The core courses of major of Accounting include Intermediate Accounting, Advanced Financial Accounting, Management

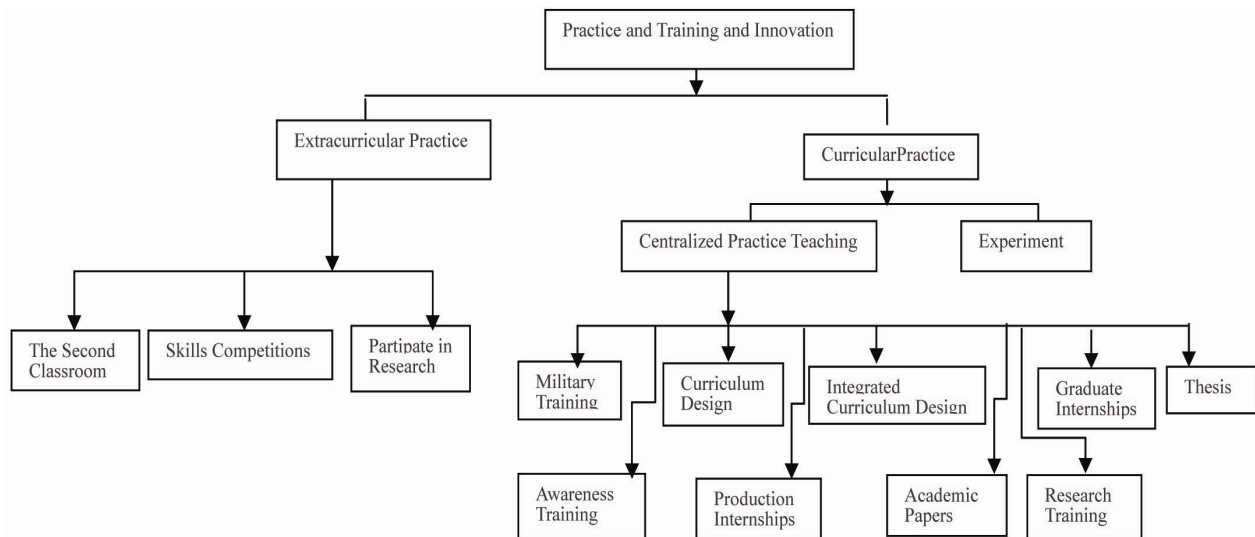
Accounting, auditing, financial management. The core courses of major of Financial management include financial accounting, management accounting, financial management, financial markets, financial analysis, Investment.

The elective courses include professional direction courses and other elective courses. Each professional will set three directions, each direction open at least three courses. In addition, some elective courses will be set. The frontier courses and lectures courses will be open to further prepare for master's degree.

4.3.4 Practice and training and innovation

The practice module consists of military training, awareness training, curriculum design, integrated curriculum design, production internships, research training, skills competitions, the second classroom activities, academic papers, graduate internships, thesis which is mainly to meet the capacity needs of talent skills training, so that students graduate with basic skills to enhance the adaptability of the work. seen Figure3

The innovation credits set four credits, including the department, the school hold professional competitions, for example ERP, international trade booth contest, the national marketing plan, UF, Kingdee competition and entrepreneurship competitions, while training the students to apply theory to practice ability to develop students' interest in learning the profession, as well as the students are selected to participate in schools and provincial and national competitions. It also includes participation in research projects of teachers and other social issues involved, and consulting for innovative activities, access to innovation credits.



Figures 3. Practice systems in talent training program

5. Conclusion

With development of the economics and society, the intersection, penetration of disciplines are becoming more extensive and deeper. The universities must reform the existing training model, training talent adapt to social needs and the modern economic development. The universities need to demand-oriented society in the process of formulating professional training programs, definite talent cultivation characteristics, reform training model, builds science curriculum. Based on professional development history and advantage of school of economics and management of Changchun University of science and technology, by study on corporations, institutions and graduate, building three-dimensional training model of impart knowledge, build capacity, improve quality, on the basis of it, professional orientation, specialty training objectives, training specifications, curriculum are be designed in the revision of talent training program.

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