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Practice and Reflection on High-Level Personnel Training and Introduction: A Case Study of Changchun University of Science & Technology

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Abstract

The great cause is based on education, and education is based on human resource. Human resource is the primary resource to revitalize education. To implement the strategy of strengthening the powers and influences of universities based on human resource is the most critical factor to create a high-level university. In this paper, on the basis of the current conditions of human resources in Changchun University of Science & Technology, authors introduces several specific measures concerning the human resource, and put forward some suggestions for discussion with other colleges, in the hope of promoting the human resource management in universities and colleges.

Kev words: High-level talents; Management innovation; Exchange of experiences

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1. INTRODUCTION

To cultivate high-level innovative talents is always the eternal subject of world higher education, which is an important aspect of qualified personnel development in universities and colleges. Recently, President Xi Jinping clearly states:

The scientific research & development level of universities and colleges and social service effectiveness are the basic contents of higher education quality, as well as the important indicator of universities and colleges' educational level. The cultivation of top talents must be the fundamental part of high-level universities and colleges.

Today, how to cultivate the innovative talents and how to create the cultural atmosphere, academic environment, and institutional guaranty has become the starting point for the new round of competition among Chinese universities and colleges, from which the world observe China's higher education.

In recent years, Changchun University of Science & Technology has conscientiously implemented the spirits of the Central Government, adhered to the view of scientific talents development, followed the requirements of national innovation system of science and technology and wisdom, applied the strategy of developing the Province by science and education, and established the strategy of strengthening the university by talents, on the basis of economic and social conditions. The university has taken the personnel construction, especially the building of high-quality talents team, as the top priority, paying more attention to the research on the work mechanism. Making careful programs for talents team construction and carrying out all activities with patience. The university has made active explorations on integrating, cultivating, introducing, and motivating talents, creating a favorable environment for encouraging and supporting qualified talents making more progresses, so that the university achieves the sustainable development in the long run.

2. THE MAIN WAY OF CULTIVATING AND INTRODUCING HIGH-QUALITY TALENTS

(a) Strengthen the introduction of domestic and overseas talents. Make best use of the cohesive effect of the state's primary top talents programs, such as "one-

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thousand-talents" program, "special support program for high-level talents", and so on. Meanwhile, expand the horizon for the selection of talents and use the media and websites to provide public offers. Collect necessary information of talents by means of international and transuniversity exchanges. Ask alumni at home and abroad to provide information. China scholarship students help to collect necessary information of talents. In addition, the university should pay more attention to and trace the high-level talents' experiences and seize the opportunities to contact with them and even further discuss about the offer.

- (b) Use "firmness and flexibility" to bring together leading talents and academic leaders. By means of offering the "visiting professor" and "part-time professor" positions, the university encourages the teaching units and scientific research centers to take cooperative research, short-term work, seminars and lectures, and academic counseling, etc. to introduce famous high-level talents at home and abroad in a flexible way. Particularly, the university focuses on the urgent demand for high-level personnel in the defense and local economic development fields. In terms of talents gathering and the innovation of production, study, and research, the university should actively display the advantages in photoelectric specialty, collect the resources of local government and enterprises, and achieve the joint employment of top talents.
- (c) On the basis of internal development of the university and make up equipped incentive mechanism in order to further strengthen the improvement of current talents cultivation. According to the state and local personnel programs and policies, the university should set up talents selection and assessment rules and relevant supporting policies, and thoroughly stimulate highlevel talents' enthusiasm and potentials by combining the specialty characteristics and development strategies and making best use of favorable policies. Besides, the university should adopt various means, such as special supports and recommendation, oversea visiting scholarships, joint cultivation, and team integration, to improve the position of high-level talents.

3. THE EFFECTIVENESS OF HIGH-LEVEL TALENTS TEAM CONSTRUCTION

3.1 The high-Level Talents Team Construction

In recent years, the university has introduced 11 high-level talents (two of them are included in the "one-thousand-talents program") from the United States, Britain, Germany, Japan, and other domestic fields, and recruited more than 260 outstanding doctoral students. Meanwhile, on the platform of internal cultivation, the university has already formed a team of more than 200 high-level talents, including Yangtze River Scholars, national excellent teachers, the State Academic Degrees

Committee Council members, "863" program's expert committee members, "973" program's chief members, the Ministry of Education Teaching Guidance Committee members, candidates for national "hundred, thousand, and ten thousand talents" program, participators of the Ministry of Education's "supporting program for the new century outstanding talents", "leading professors" of Jilin Province, and senior experts of Jilin Province. This team has already become the critical power for the development of the university.

Particularly, in the year 2012, the high-level talents team construction achieved a great progress. A special "Yangtze River Scholar" was selected from the Changchun University of Science & Technology for the first time, which was a great breakthrough for the higher education in Jilin Province.

3.2 Rely on High-Level Talents Team Construction and Improve the Performances of Specialties, Teaching, and Scientific Researches

With the continuous strengthening of the construction of high-level talents team, it has improved the position of the university in the comprehensive competence rank and the right to speak, which has brought a lots of benefits to the university in many aspects, such as the application for important scientific research projects, the construction of critical research platform, the consultation and constitution of important industrial policies, and the selection of national important talents programs.

In the Changchun University of Science & Technology, the team of more than 200 high-level talents have taken 3 projects of national "973" programs, 1 pre-project of national "973" programs, 12 projects of "863" programs, and 3 projects of national scientific and technological supporting programs, 72 projects of state nature science foundation, and more than 1,300 projects of other scientific research programs, realizing lots of leading and advanced research fruits with independent intellectual rights. The university has won 91 rewards at national or provincial levels, in which it included 1 second prize of National Technology Invention, and 1 second prize of National Scientific & Technological progress.

Meanwhile, the high-level talents of the university are also active in disciplinary development and continuous innovation of teaching research and reform, realizing a series of fruits in many fields, such as 1 second prize of national teaching contest, 4 national experimental teaching demonstration centers (the leading position of local universities), 1 national virtual simulated experimental teaching demonstration center, 3 national engineering practice education center, 2 provincial bases of college students' innovation practices, 2 national talents cultivation pattern innovative experimental zones, 7 national special disciplines, 2 national teaching teams, 4 national elite courses, 3 national sharing courses of elite resources, and 2 integrated reform disciplines

of the Ministry of Education and Autodesk. All these achievements are inseparable from the high-level personnel's contribution of wisdom and energies.

"Thousand talent" program, has made lots of innovative research achievements in the field of extreme ultraviolet lithography. The extreme ultraviolet lithography is the core technology for the next generation of LSI development. This task is especially supported by China's long-term scientific development program.

Professor Jiang Zhaoguo, introduced by the university as an expert of "thousand talents" program, has focused on the research of "green energy-saving light reflective display technology", which is an international initiative, filling the gaps in the world in this field.

Practices have proved that the cultivation and introduction of high-level talents could significantly motivate and improve the influences of the university in fields of talents cultivation, scientific researches, discipline construction, international exchanges, brands and reputations, etc.

On the one hand, the reputation and influences of highlevel talents can attract other talents to join them in work, forming the integration of high-level talents in a sense, which will accelerate the construction of specialized university, and may lead the higher education to a senior level, finally achieving the province's transition to outstanding higher education.

On the other hand, the high-level talents' dedicated, unselfish, and serving spirits can inspire each teacher around them, which will help to form the innovative team. Under the "conveying, helping, and training" effect of the team, the youth will achieve a rapid growth in Changchun University of Science & Technology.

4. EXPERIENCE AND REFLECTION

4.1 Fully Understand the Values and Significance of High-Level Talents to the University Development

First of all, in terms of state strategy, human resources are the primary resources of the state. In other words, "the state should be run by talents, the politics should be governed by talents, and the cause might be accomplished by talents". To a certain degree, the competition of comprehensive national strength depends on the competition of high-level talents. The rise of any country has always started from the competition for human resources. Secondly, human resources are the key to the enhancement of university. Universities are the place full of talents. The core mission of universities is to attract the most outstanding teachers to teach and the most excellent students to learn. The high-level talents are the core competitiveness of universities. The quality and the quantity of high-level talents reflect the comprehensive strengths of universities.

Improve the weak part of the teaching staff. Some disciplines develop slowly due to the lack of leading scholars, and some emerging subjects grow slowly due to the lack of high-level talents. Besides, current talents cultivation mechanism needs a long period and the effectiveness is unsatisfying, which may cost the best opportunity for development. All these problems need to be dealt with properly.

Gather high-level talents and form a talent platform. On the one hand, reputation and influences of high-level talents can attract other talents to join the team, forming a talent gathering platform. On the other hand, the innovative team regards the high-level talents as the core, with the effect of "conveying, helping, and training", and benefits the rapid growth of young teachers.

Improve the whole university, or ecological related disciplines' balance power and the right to speak in the comprehensive competition. It is reflected in many ways, such as the application for great scientific research program, the competition for critical research platform, the consultation and constitution of important industrial policies, the establishment of high-level talents training centers, the selection of state important talents, the construction of high-level talents team, the cooperation of politics, production, study, and research, and the attraction for social resources. The connotation and characteristics of high-level talents determine that they are the key for the fast and healthy development of universities.

4.2 Adhere to the Strategic Idea of "Human Resources Being the Primary Resource"

Establish the scientific view of talents and adhere to the human-oriented concept. Liberate thoughts further and reform the opinions. Update the system and make relevant innovations

First, focus on the national and regional development strategies, introduce and cultivate a batch of leading talents and innovative teams who are capable of promoting knowledge innovation and essential theoretical innovation, breaking through key technologies, driving emerging subjects forward, and developing high-tech industries, promoting and optimizing the teaching staff structure of university.

Second, promote personnel work with wider horizons, wider ideas, and wider minds. Establish the idea of talents being the foundation of university, the basis of university development, and the source for university power. Give the top priority to the personnel work.

Third, carry out the strategy of "strengthening the university by talents", introduce and cultivate a batch of outstanding talents, leading talents, and backup talents in fields of natural science, engineering technologies, and philosophy and social sciences, and achieve the sustainable development of talents team. Develop a high-level talents team with teaching ethics, widening

visions, proper size, optimized structure, reasonable layout, strong innovation capabilities, and international competitiveness.

4.3 Establish and Improve a Long-Term Effective Mechanism for Attracting and Cultivating High-Level Talents

First, develop a series of institutions, such as the "Highlevel Talents Introduction and Management of Changchun University of Science & Technology", "High-level Talents Flexible Introduction of Changchun University of Science & Technology", "High-level Talents Supporting Program of Changchun University of Science & Technology", and "Support Program for 'Outstanding Team' in Changchun University of Science & Technology", and establish a set of personnel system with policy directions, academic organizations' selection and appraisal, and improved equipped measures. The university focuses on improving the assessment, selection, incentive, guaranty, and liquidity mechanism for high-level talents' introduction and cultivation.

Second, improve the effectiveness and efficiency of "green channel" for high-level talents introduction. Establish a fast assessment and feedback mechanism for high-level talents introduction at home and abroad. Develop the routine conference system for high-level talents introduction, and use it to determine the position of high-level talent, as well as related benefits, salaries, etc. enhance the work efficiency of high-level talents introduction.

Third, provide competitive remuneration packages for high-level talents. In terms of talents at different levels, combine the salaries and the position and performance related, develop a long-term and short-term incentive mechanism, and realize the "first-class compensation for first-class talents".

Fourth, integrate internal resources and make them benefit the high-level talents. Develop more channels and create multiple investment mechanism to provide sufficient resources for high-level talents in fields of expenses, real estate, scientific research facilities, and assistants. With support of the state and Jilin Province, Changchun University of Science & Technology has invested more than 40,000,000 to provide start-up funds, special research funds, and life support funds for high-level talents.

Fifth, build a service system for high-level talents development. All functional departments and agencies should cooperate with each other and carry out the equipped conditions for high-level talents' work and life, guaranteeing everything well. All teaching units and scientific research centers should arrange specific people to be responsible for the coordination. Other agencies must cooperate in an active way, and help to offer jobs for high-level talents' spouse if necessary. Build the high-level talents tracing service and communication feedback

mechanism. Understand their needs for development, their development conditions, and their academic research progresses. Find out their difficulties and problems in work and life, and create a favorable work atmosphere for high-level talents.

5. FUTURE WORK PLAN

5.1 High-Level Talents Cultivation and Introduction

As for the high-level talents cultivation, the university should establish detailed supporting program. On the basis of various national and provincial talents funding programs, the university can encourage and help high-level talents to make applications and compete for the name of the top talents in a certain field. Besides, the internal scientific research platform of the university is the carrier of talents development, which can help them win national and provincial prizes. As for the high-level talents introduction, the university can enlarge the scope and take initiatives to collect outstanding talents. Strengthen the introduction of wisdom and intelligence. If full-time employment is impossible, then choose the part-time style. For a university, outstanding talents can be shared, if not owned.

5.2 Improve the Quality of Young Teachers

Based on the key specialties, key labs, academic innovation platform, and innovative team, the university should provide a platform for outstanding young teachers, create an environment and encourage them to conduct innovative explorations. Select and send outstanding young teachers to join in top project teams in famous universities, research institutions at home and abroad. Encourage young teachers to learn about the latest development of one field and trace the dynamics of one discipline. By this way, young teachers can master the newest research approaches and may reach higher academic research level. As for the new teachers, the university should provide rigid pre-job training for them, and make up through pre-job training programs. Then, they will grow fast and participate in teaching and scientific research as soon as possible.

5.3 Team Building

Team building should be completed step by step. In a dynamic development pattern, if one team is mature, then develop it with all attentions. Gradually, from a series of scientific research teams, disciplinary teams, and teaching teams, with rational distribution of academic levels, positions, and ages. In terms of the building of scientific and technological innovation teams, make best use of key labs, engineering (technological) research centers, and other scientific research innovation platforms, gather a batch of outstanding scientific research innovation groups, and create a series of teams, which are capable

of accomplishing various important scientific research programs. In terms of the building of disciplinary teams, take the nationally important disciplines, provincial key disciplines, and first-class doctoral disciplines as the platform, and constitute the innovative and dynamic disciplinary teams, with stable discipline leading scholars and backbone elites. In terms of the building of teaching teams, focus on the construction of featured specialties, elite courses, experimental teaching demonstration centers, and talents training experimental zones, and create a series of specialized teaching team, with the spirits of teaching innovation.

CONCLUSION

In short, relevant arrangement of high-level talents is a complicated systematic project due to its wide scope, political concerns, and huge influences. The university needs to continue to explore the appropriate policies for self development. The suggestions mentioned above are just for discussion and consideration if necessary. In the year 2014, the talents project of Changchun University of Science & Technology starts thoroughly. We should seize the opportunity, summarize previous experiences, improve related policies, create a favorable environment, offer excellent services, continue to make innovations of talents

work mechanism, and promote the great development of the university.

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