The Advice of Training Application-Oriented Undergraduates of Local Colleges in Hebei Province to Suit Regional Economic Development

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Abstract
Local colleges are the driving force of regional economic development, and it is an important duty for local undergraduate colleges to train application-oriented undergraduates in order to make them adapt to regional economic development. This essay analyses the necessity of assuring that teaching targets should be used to train application-oriented undergraduates, and presents how to set up the mode of training application-oriented undergraduates of local colleges to make them adapt to regional economic development under the principle of talent cultivation.

Keywords
Local Undergraduate College, Application-Oriented Undergraduates, Talents Training

1. Introduction
Though many local colleges put forward the target to train application-oriented undergraduates, there is not a clear understanding of questions as why and how to cultivate application-oriented undergraduates. Thus, it is necessary for us to do some research of the current situation of how local colleges cultivate application-oriented undergraduates with an aspect which is needed in adaption of regional economic development.

2. Orientation of School Running and Target of Cultivation
1) Orientation of school
Orientation of school running is the guidance of school’s development. A scientific and reasonable orientation of school running is the basic of the development of school. Local undergraduate colleges should take their own traditional and the regional economic environment into consideration when positioning their orientation of school running, combining their strengths and chances given by the environment to make sure the orientation of school running (Su, 2013). Most of the local colleges are located in cities beyond provincial capital city, whose economical development and the attraction of talents are lower. Meanwhile, the school-running history, education resource and discipline strengths of local undergraduate colleges are in a weak position, so these schools have a lower recognition out of the local area. As a result, it is a wise choice for local colleges to orient their school running target as to serve the region economic development and cultivate the talents which is needed for local economic development.

Local undergraduate college should actively integrate into local communities and meet the social needs. Once the ability of serving the society is approved by society, the social reputation will be enhanced, which affects the quality of student source and employment rate of graduates directly. Only to orient the school running as to serve local economy, they can achieve their goal to cultivate application-oriented talents which can meet the need of the development of local economy with distinctive features, thereby the talents can enter the production and serve areas in a more convenient and direct way, and promote the target of building a well-off society in local area. And only when local schools link to the need of local economic development closely with the basic of reasonable orientation, they can have positive interactions with local tangible economy.

2) Target of cultivating talents

If students are regarded as “products”, then schools are “companies” (Zhou & Xiao, 2014). To make products marketable, companies not only need to have a right market position, but also have to produce products that meet market specification. Orientation of school running should be diversity, and the features of products show the diversity. It is a critical factor to prove whether the orientation is successful; whether the scale of talents cultivation meets the need of market.

Local undergraduate colleges should cultivate application-oriented undergraduates who are adapted to regional economic development as their target of cultivating talents. First, the type of talents should be application-oriented talents. This kind of talents should be paid more attention to transformation efficiency and result, which are suitable for a high speed development of local economy. Then, the level of talents should be undergraduates. To cultivate application-oriented talents is not strange for many newly-built colleges. In China, vocational school is the first that set their target to cultivate application-oriented talents. While application-oriented undergraduates are different from those junior college students, the requirement for undergraduates is higher than junior college students. The education of undergraduates concentrate more on the systematic of knowledge, they grasp the basic theory, knowledge, skill that is needed.
for their major, also, they obtain the initial ability for practical and research work (Zhang & Wu, 2016). Otherwise, the sustainable development of regional economy needs the intellectual support by undergraduates’ talents. As a result, application-oriented undergraduates are the most suitable talents for the need of regional economic development.

3. The Principles of Training Application-Oriented Undergraduates That Suitable for the Need of Regional Economy Development

1) Focus on characteristic industry and build the cultivation system based on the need of markets

In case of cultivating talents that meet market specification, newly built colleges should establish their profession cultivation target as to grasp the need of economic development accurately. Each place can form its own characteristic field during the development, and these characteristic fields should be focused by newly built colleges. For example, petrochemical, medical, construction material and textile are still the traditional advantageous industries in Heibei Province. And industries such as electronic information industry in Shijiazhuang, fine varieties steel industry in Zhuozhou, information industry in Langfang, ceramic industry and special steel in Tangshan, special glass in Qinhuangdao, major equipment manufacturing industry in the eastern part of Hebei Province and new material industry in the southern part of Hebei Province are the advantageous industries within the area. Furthermore, there are also some emerging industries such as pharmaceutical industry in Handan, new energy industry in Baoding, data industry in Qinhuangdao, vanadium-titanium industry in Chengde, which needs a large amount of application-oriented undergraduates to join in order to develop them. Some of these industries are not only new in Hebei province but also new in China. Thus, to get the important point of regional economy, built related subjects and cultivate specificity talents can make these subjects become advantageous subjects not only in province but also in China.

2) Tamp the theoretical teaching, strengthen practical teaching and highlight practicability

Application-oriented undergraduate education requires students can both obtain reasonable knowledge structure and do well in various professional areas (Chen, 2016). Also, it emphasizes practicability, skill and innovation. Colleges should build theoretical teaching system with the combination of basic course and professional skill to realize the cultivation target to broaden the scope of knowledge, strengthen students’ application ability and have a solid knowledge foundation. Theoretical teaching system should pay more attention to cultivate both humanistic and scientific spirit, exercise thinking ability and accumulate professional knowledge. Practical teaching system have to value the importance of cultivating professional ability, regard strengthen application ability and sense of innovation, and get the professional qualification as their guidance, to build multilevel experimental teaching system and multiple forms of practical teaching
system.

Practice teaching is an efficient method of cultivating students’ basic ability, practical capacity and innovation spirit. Colleges should pay more attention to laboratory construction, actively promote comprehensive and experimental projects’ construction, and increase the credit proportion of practice teaching. College also have to design open laboratory so that students can take experiment projects as an elective course and make an appointment to enter the laboratory to do relevant activities, in that way to lead students unite their graduation projects with essay and relevant experiment. In the same time, students’ practical and innovation ability should be strengthened, and their application skill should be cultivated.

3) Enhance school-enterprise cooperation and school running orientation

Colleges should make full use of their resource advantage, strengthen cooperation between themselves and companies of advanced technology and standardized management. First, the practice base outside the school should be built to offer a stage for students to practice their operational skills. Second, the cultivation system of letting teachers train in company should be established as the key of cultivating students’ application skill is to make sure that teachers grasp new skills, so it is necessary to let more teachers practice in companies, know more about skills that some positions need and practice more skill to improve the teaching level. Then, the amount of crosswise projects between schools and companies should be increased. To encourage teachers establish crosswise projects, discover and solve problems in companies can not only help enterprises to solve the operational problems but also help teachers grasp the front line situation of production, management and service. Also, teachers’ ability of solving practice problems can be enhanced, teachers’ horizon of educational reforming and scientific researching can be inspired, teachers’ level of guiding students to design curriculum and thesis can be improved.

4. Construction of the Application-Oriented Talents’ Cultivation Mode

1) Ensure the knowledge, ability and quality structure of talents cultivation

The knowledge, ability and quality structure of talents cultivation depend on demand of the market. Colleges should analyze jobs needed by the market of its knowledge, ability and quality requirements, and then build cultivation mode of how to cultivate these skills and qualities.

Knowledge structure is mainly focused on basic knowledge, professional knowledge and technical knowledge, and is taught through core and module courses. Ability structure is mainly focused on practical ability, professional ability and career development ability, and is cultivated through practical courses. Career development ability is mainly reflected on whether graduates can manage the development of new products and solve technical and management problems happening in the front line of production after several years’ practice in their work. Quality structure pays more attention to professional quality, career qual-
ity and also quality of ideological and politics, humanity and scientific. Quality is the comprehensive index of talent evaluation and is the reflection of the internalization of knowledge and ability. Knowledge is the foundation of talents cultivation, ability is the core of talents cultivation, and forming quality is the final goal of talents cultivation. A major’s specific structure of knowledge, ability and quality has to be designed depending on the career goal cultivated by this major.

2) Construction of teaching system

The discipline construction and professional structure should be further improved. Nowadays the science and technology is developing at a high speed, the speed of knowledge updating is also faster than before. Newly developed industries and careers are emerging motivated by knowledge updating. First, local undergraduate colleges should get rid of traditional mode of discipline construction, and have some innovation in developing subjects such as cultivating some new disciplines and inter-disciplines to set up their own feature and advantage in school running. Second, these schools should optimize the discipline system that they already have, strength the input to application-oriented courses and increase the practicability between discipline construction and regional economic development. Then, the crossing and fusing among different subjects should be strengthened. In economic society, there are many jobs needing comprehensive knowledge and skills, and because simplex professional knowledge and skills cannot meet the need of jobs, to strength the crossing and fusing of knowledge can help to highlight the professional features, also, it can help the employment of college students and improve reputation of colleges.

a) Optimize the curriculum setting. The curriculum setting should be designed base on the job requirements, and the aim of curriculum setting is to teach students to obtain the application ability that needed by job requirements. The course contents are divided into theoretical courses and practical courses. Theoretical courses include basic theory, professional theory and professional skills. Theoretical courses should mainly focus on theoretical-technical knowledge and technical principle to let students grasp the theoretical basis and application ability of skills. The contents of professional courses should be adjusted in many points such as project, special subject and problems. Also, teachers’ ability of learning skills have to be improved, the contents that teachers teach should increase more technology content and frontiers. Practical courses include basic skills training, special subject practical training and post comprehensive training. The aim of practical teaching section is to cultivate technology application ability and intelligence skills of students. And this section should account for a larger share in teaching plan. Practical training should be put into the first place, and the course hours of practical teaching should account for at least 40 percent of whole teaching hours in order to let students get basic skill and professional basic systematically. The design of class contents should focus on the relationship of practical teaching and theoretical teaching, and strengthen the connection between these two kinds of classes.

b) Strengthen practical teaching. Practical courses in school should be con-
nected with the practical base outside school. Practical course in school should contain reappearing situation in work, practicing basic ability repeatedly and making the scale of running a school adapt to the cultivation goal. Practical base outside school should use various forms of cooperation between school and company based on different features of different majors to combine teaching and enterprise production process and bring classes into companies. Practical base outside school should mainly focus on the understanding of job sites and practicing in work in order to strengthen students' perceptual knowledge in work, to cultivate students' ability in solving practical problems by using the professional knowledge or skills, to let students learn how to organize production, to strengthen the connection between theory and reality, and to cultivate students to develop excellent professional quality.

To build practical teaching system, the practical teaching plan should be formulated first. In the period of making and putting teaching plan into practice, colleges should have an overall understanding and designing of the practical teaching of disciplines to make practical teaching be stylized and systematized. Then, the environment construction of practical teaching should be thought highly of. The practical teaching environment is not the integration of laboratory, workshop and equipment, but a special education environment and education effect. Thus, besides the simulation of teaching environment, the construction of mental environment and cultural environment should also be emphasized, so that students can have the feeling of field practicing in laboratory and improve the result of practical teaching.

3) The guarantee system of talents cultivation

The teaching quality monitoring system is the guarantee of talent cultivating mode. The quality control of teaching comes from two aspects. One is the teaching assessment from national education department, including academic degree evaluation and undergraduate teaching evaluation. Another is from inside quality guarantee mechanism of local undergraduate college. The improvement of teaching quality cannot depend on pressure from outside; the effect of teaching can be improved fundamentally and continually only if college itself has the quality awareness. First, teachers have to improve the awareness of teaching quality. All of teachers should establish teaching-based conception as teachers should take teaching as the foundation. Only to improve the teaching quality, colleges can be developed, so that all of teachers can have a better development. Second, the evaluation system of teaching quality should be established. The supervision and management system of some departments should be established. Besides teaching quality should be evaluated and supervised, experiment, practical training and graduation project should also be evaluated and supervised. Then, the result using system of quality evaluation should be established. The result of teaching quality evaluation should be connected with teacher and faculty assessment, job title engagement, and workload calculation, and be combined with the evaluation of outstanding students and scholarship. Last, termin-
al monitoring, because the teaching quality reflects from the feedback of deviation between the quality of graduate and the demand of social talent, and the feedback will help to adjust the aim and process of cultivation directly, so to carry out terminal monitoring on graduates, to research and collect the feedback from employers about graduates’ knowledge, ability and quality, then to adjust teaching plan and teaching process is the concentrated embodiment of application-oriented undergraduate college’s guiding ideology of running school, which is to cultivate talents that can serve for the market adapt to the demand of school running.

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Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

References


