Research of “1+3+4” Training Mode of Applied Innovative Accounting Talents Under the Integration of Production and Learning

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Abstract. College students of accounting profession should possess the ability of application and innovation as basic quality. Under the background of integration of production and learning, based on the analysis of the ability of application and innovation of college students of accounting profession and it’s influencing factors. This paper constructs “1+3+4” training mode of applied innovative accounting talents and explores the implementation path and safeguard measure of this mode.

Introduction

To build an innovation-oriented country is the major strategic decision that the government made. Owning various talents in innovation and entrepreneurship of considerable quantity and quality is the essential factor whether we can successfully build an innovation-oriented country or not. In recent years, especially since the promulgation of "views on the plan of implementation of improving higher education innovation capacity" by Ministry of Education in March 2012, Colleges and universities have made some attempts and achieved results on the cultivation of applied innovative accounting talents. However, it still cannot meet the social needs of applied innovative accounting talents and the needs that college students want to achieve their own value. The cultivation of applied innovative accounting talents is a systematical and complicated social engineering. It requires co-cultivation across government, universities, industry and enterprises if we want to finish the system engineering with high quality. However, in practice, due to the late start of innovative education in universities in China, government, universities, industry and enterprises and other social organizations have not yet formed a joint force in the training mechanism, leading to serious disconnection. Therefore, how to integrate various resource efficiently and construct training mechanism of applied innovative accounting talents under the background of the integration of production and learning has become the urgent question which should be answered urgently in terms of cultivating talents in colleges and universities.

Ability of Application and Innovation of College Students of Accounting Profession and It's Influencing Factors

The ability of application and innovation is using existing knowledge to identify problems, analyze problems, solve problems and bring forth the new through the old, create new ideas during the problem solving process. The job of accounting is of special nature and is subject to the accounting laws and regulations promulgated by the State. therefore, the ability of application and innovation of students majored in accounting should be reflected in: On the basis of obeying the accounting standards, the ability of choosing accounting system flexibly which influence the innovation and development of accounting constraints and the comprehensive operational capability of cross-integrating accounting expertise and other disciplines.

The cultivation of applied innovative talents in college is a complicated social engineering, it is affected by a variety of factors. To sum up, there are three main factors: material, environment and human(Li Xing, Gao Yongyi 2012). Education funding of government and supervision,
organizational support and institutional support are the material factors, population, employment environment, culture of innovation and educational philosophy are the macro-environmental factors, academic atmosphere, training mode, cooperative culture and family environment are the micro-environmental factors, behavior of college students, mentors, university administrators and relevant government officials are human factors.

**Existing Problems Arise during the Training Process of Applied Innovative Accounting Talents**

In recent years, although the government introduced the relevant policies, encouraging training mode such as: cooperation between school and enterprise, integration of production and learning, and multi-party coordination to improve capability of application and innovation of students majored in accounting in college. Due to the influence of various factors, there is a simple transplant and a simple extension of the phenomenon in the actual implementation process. Compared to Europe and the United States in terms of developed countries, the overall innovation ability of accounting students is not optimistic. Traditional backward educational concepts, mere formality of mechanism of school-enterprise cooperation, single apprenticeship instruction mode, lag in the construction of platform of discipline and innovation are the main problems.

(a) Emphasizing on the transfer of professional knowledge, ignoring the cultivation of awareness of innovation.

On the one hand, In the setup and arrangement of course system, the phenomenon of more theoretical hours, less practice hours, more professional hours, less time to create innovative business exists in the cultivation process of applied innovative accounting talents in some colleges and universities. On the other hand, the training process still placed one-sided emphasis on the function of memory and teachers ignoring the innovation interaction between teachers and students. Emphasizing the transfer and accumulation of knowledge and ignoring it's the creation and practice lead to the underperformance of the initiative and creativity of undergraduates' self-exploration, which seriously affects the cultivation of innovative consciousness and innovative thinking.

(b) Emphasizing on agreement signing between school and enterprise, ignoring deep cooperation between production and learning

On the one hand, the policy environment of deep cooperation between schools and enterprises is poor. Although the government introduced the relevant policies, encouraging integration of production and learning, cooperation between school and enterprise. However, the actual implementation process faces more difficulties, the operation is not ideal. One the other hand, the cooperation is just in the form of surface, focusing on the signing of cooperation agreements, ignoring the implementation of the agreement. Some cooperation stay on the level that only allow students to visit practice and graduation practice, for example, under the mode of cooperation between school and enterprise, some universities will arrange internship in business for students majored in accounting, due to constraints of resource, it is difficult to conduct scientific management of the process. In order to prevent risk and pursue economic efficiency, it is difficult to put educating students as the primary task into the business management, innovative collaborative training results unsatisfactory.

(c) Emphasizing on single apprenticeship, ignoring the co-cultivation mode between mentors.

Mentor is the most important external factor to cultivate students' innovation ability. For students majored in accounting, enhancement of capability of application and innovation needs a team made up of noble and virtuous mentors that quickly adapted to technology innovation and good at application. At present, although some colleges and universities encourage the construction of "double-habitat" teachers, trying to change the mode of cultivating collectively by mentors in the process of training of applied innovative accounting talents, however, the steering committee is useless, and the result is still a single tutor system in implementation process. A single tutor system is difficult to play the role of cross-disciplinary, brainstorming, nurturing innovative thinking. At the same time, the single tutor system generally adopts the instruction mode of apprenticeship, students are passive followers of their mentors, rather than mentor-oriented mutual cooperation and discussion. It is difficult to develop students' initiative and creativity.
Lag in the construction of innovation platform, lack of support in the cultivation of the capability of innovation. Cultivation of the capability of innovation needs discipline construction, innovation platform and innovation accumulation and other conditions as support. Many colleges and universities in China have long been plagued by the shortage of funds, leading to under-investment in the scientific research, discipline construction and construction of innovation platform, resulting in serious lag in discipline construction and construction of innovation platform, restricting regularization of student academic salon, it is not conducive to stimulate students' innovative thinking, restricting the students to carry out innovative and practical activities, which is not conducive to the application of innovative capability of students.

Construction of “1+3+4” Training Mode under the Integration of Production and Learning

In order to inspire students’ innovative thinking and improve their capability of innovation, aiming at the problems existing in the process of cultivating innovative talents in accounting major, the paper constructs the "1 + 3 + 4" training mode.

(a) Meaning of "1 + 3 + 4" training mode.

Training mode refers to the mode of cultivation operation and organization which are composed of the following four closely related factors: training objectives, training program, cultivation process and cultivation evaluation. (Meng Jie, lie Xuechang, 2006). Training objectives is the general and destination of training mode, whether we can achieve training objectives depends on proper program and scientific training process. "1 + 3 + 4" training mode refers to collecting resource from school and enterprises, aiming at one training objective( aimed at cultivating applied innovative accounting talents), reflecting three competency levels (expertise, application, innovation), achieving four kinds of integration (integration of teachers, integration of curriculums, cultural integration, integration of research and development). It is a training mode that aimed at inspiring innovative thinking of students majored in accounting and improving the capability of application and innovation under the integration of production and learning.

(b) Implementation path of "1 + 3 + 4" training mode.

“1 + 3 + 4” training model is characterized by the introduction of the mechanism of school-enterprise integration that aimed at deficiencies in the training process of applied innovative talents for students majored in accounting, that is, through integration of teachers, integration of curriculums, integration of culture, integration of research and development (training objectives, training programs, training process and training evaluation) these four essential factors to penetrate and integrate the whole process, highlighting the training characteristics of "application of innovative capability". The specific implementation path is as follows:

(1) Integration of teachers, implementing "co-tutor" system

"Co-tutor" system is a group composed by many mentors outside school, making full use of various quality education resource from school or outside school, fulfilling the needs that cultivation of applied innovative talents requires superior, professional and practical teachers. On the one hand, through the establishment of "workstations of enterprise teacher" office of cooperative enterprises in the school, making corporate lecturers engaged in professional education and setting up seminars become the norm. At the same time, various accounting knowledge contest, counting contest and other contest of accounting skills organized by enterprises and trade associations in the campus reject fresh vitality into practical teaching. On the other hand, arranging internship in the enterprises that cooperate with school for students, students are guided by mentors in school and outside school, mentors in school contact with mentors in the enterprise that cooperate with school on a regular basis, in addition, they adjust the training plan according to practical reflection. School-enterprise "co-tutor" system fully exploits the advantage of full-time teachers in the school and part-time teachers in the enterprise, providing intellectual support for the cultivation of applied innovative talents.

(2) Integration of curriculums, constructing two-lane intertwined curriculum system of “curriculum in school plus curriculum in enterprise”
The more quickly the economic develops, the more important accounting becomes. In order to adapt to the rapid development of the economic society, accounting standards update quickly. Faced with challenges such as changes in accounting rules and the new economy, not only undergraduates need to learn, staff in the enterprise need to update their knowledge. One the one hand, school and enterprise co-develop two-lane intertwined curriculum system that refers to “curriculum in school plus curriculum in enterprise” surrounding the needs that accountant requires, which is suitable for the cultivation of applied innovative talents in school, update of knowledge and improvement in capabilities for staff in the enterprise. On the other hand, Compiling integrative teaching materials or guiding book with a combination of production and learning that suits the educational characteristics of applied innovative talents, which expertise in the enterprise participate in the compilation process. It is aimed at strengthening the cultivation of students’ capability of practical application and innovation.

(3) Integration of culture, advocating spirit of "artisans"

School culture is characterized by its special educational philosophy, historical tradition, regional culture, while enterprise culture is characterized by its operating and service philosophy, strategic goal, spirit of innovation and system culture. Material, institutional, behavioral culture is only its external manifestations and carriers whether for the campus culture or for the corporate culture, spiritual culture is the core and the "soul". Cultural integration between school and enterprise mainly refers to the school culture and corporate culture are compatible with each other in content. Firstly, Understanding the essence of the culture of co-operative enterprise deeply and integrating them into the school's educational orientation and it's educational philosophy. In order to prevent keening on the docking of material, rules, behavior cultural and ignoring the solid work hard, integration of pioneering spirit and other aspects. Secondly screening and optimizing enterprise culture to prevent simple superposition of school culture and enterprise culture. Thirdly is to invite senior business executives to explain the professional culture, school culture, and their organic integration with corporate culture such as competitive awareness, efficiency awareness and professionalism. Through the integration of school culture and enterprise culture, penetrating good core values of the enterprise into the spirit of school and style of study by material, rules and behavioral culture, advocating the spirit of solid work hard, and pioneering ‘artisans’.

(4) Integration of research and development, advocating the spirit of innovation and business.

Firstly, carrying out scientific cooperation between schools and enterprises and building a research and development center to provide a platform for students for innovation and practical activities. Relying on school laboratories and corporate R & D department, research and development center is established jointly funded by schools and enterprises. It is a platform of collaborative innovation that has the integration of production, learning and research. Through which students can be directly involved in R & D center projects such as research and implementation in financial sharing center. In addition, enhancing the capability of application and innovation through project development, technical support and other activities. Secondly, school and enterprise can cooperate on a regular basis to organize some activities such as "big pick" projects, writing business plan and other innovative ideas and competitions, igniting the students’ passion of innovation and entrepreneurship.

**Guarantee of Operation of “1+3+4” Training Mode**

The cultivation of applied innovative accounting talents is a systematical and complex program, sound system and construction of mechanism are the necessary guarantee for the effective operation of "1 + 3 + 4" Training Mode. Therefore, the school should optimize the internal structure of teachers and carry out strict evaluation system, creating good scientific research and open educational atmosphere of the school, establishing cooperative platform between school and enterprise and strengthening the construction of innovative practice base.

(a) Making strict evaluation rules, strengthening the selection and dynamic management of mentors

On the one hand, guaranteeing the quality of cooperative mentors and making scientific and proper selection rules of the mentors can absorb those excellent mentors who are responsible and
outstanding. On the other hand, in order to make strict evaluation rules and implement the "exit" mechanism, we should make rules of reward and punishment and identify teachers’ responsibilities. Carrying out evaluation on a regular basis and eliminating those teachers who are unable to fulfill their responsibilities and incompetent for applied innovative education to make sure dynamic management of the mentors.

(b) Implementing flexible credit system, encouraging students’ spirit of innovation and entrepreneurship.

Learning from foreign advanced experience to innovate examination and achieve flexible credit system. Under the framework of flexible credit system, allowing students who have a potential of innovation and entrepreneurship to apply for a suspension to apply for business. In the process of entrepreneurship, schools and education authorities should retain students’ status. When the students who applied for suspension return to school, they will be subject to the change of the examination form of graduation practice and graduation thesis. With the entrepreneurial proof issued by business sector or entrepreneurial team, they may be free from graduation practice after application. They can use the feasibility study report of the company, marketing plans or research reports the production of products, bidding and other alternatives to replace the graduation thesis.

(c) Constructing the interactive platform of accounting professional digital resources with the help of the Internet

Firstly, building boutique resource sharing course using the core curriculum and then organically integrating the curriculum construction, information storage, teaching management and evaluation on the basis to establish a framework that suits the long-term sustainable development of education resource and for all aspects of teaching and learning. Secondly, building a platform of open distant education lifelong learning service, establishing distant education environment of "everyone, always, everywhere" to break through space and time constraints and to achieve "rebuilding",continuous value-added program, and constantly upgrading graduates’ capability of practical application.

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References