

Research Article

Study on Constructing an Education Platform for Innovation and Entrepreneurship of University Student

Xiaowei Jiang and Yonghong Sun
Changchun University, Changchun 130022, China

Abstract: To solve the problems existing in innovation and entrepreneurship education in colleges and universities of China, a series of effective approaches are proposed, so as to construct an education platform for innovation and entrepreneurship which adapts to market demand and could promote the development of comprehensive quality. In this study, the problems existing in innovation and entrepreneurship education in our colleges and universities are analyzed in detail. Then a series of approaches are proposed including establishing the scientific curriculum system for innovation and entrepreneurship, establishing practice base for innovation and entrepreneurship, improving the professional level of teaching staff for innovative and entrepreneurship, creating a cultural atmosphere and strengthening the innovative consciousness and entrepreneurial spirit, establishing a sound reward systems of innovation and entrepreneurship and building a network platform for innovation and entrepreneurship, in order to carry out innovation and entrepreneurship education preferably, cultivate innovative quality and entrepreneurial ability of students and alleviate the severe employment pressure in our country at present.

Keywords: Innovation and entrepreneurship education, platform construction, university student

INTRODUCTION

Innovation is the core and essence of entrepreneurship and the source of entrepreneurship. The value of innovation lies in the entrepreneurship. The innovation need to be pushed to the market by entrepreneurs, translating into realistic productivity and achieving its market value. Entrepreneurship is the action and pattern of manifestation of innovation, is the exploratory behavior for expanding or opening up the new development space and is a kind of innovation process of constant self-challenge. Entrepreneurship promotes and deepens innovation. Thus, innovation and entrepreneurship is one integrated mass (Yu, 2012). In innovation and entrepreneurship education, the innovation and entrepreneurship mutually integrate and run throughout from beginning to end.

Abroad, in 1947, Myles Mace, professor of Harvard Business School, was the first to open an entrepreneurship course named "Start-up Enterprise Management", which a total of 188 MBA students attended and which is the earliest start of entrepreneurship education in the world (Zhou, 2009).

In our country, the innovation and entrepreneurship education originated from the reform and openness in the late 1970s of the last century. As the member of the "Entrepreneurial Education" project of the United Nations educational, scientific and cultural organization, our country pilots entrepreneurial education in basic education stage as early as 1991, but the innovation and

entrepreneurship education in colleges and universities started rather late. The entrepreneurship plan competition held by Tsinghua University in 1997 is the beginning of implementing entrepreneurial education in colleges and universities in China (Zhu, 2012). The decision on deepening education reform and comprehensively promoting quality education released by the State Council of the People's Republic of China in 1998, pointed out that the higher education should attach importance to cultivating students' innovative ability, practical ability and entrepreneurial spirit. In 1999, in the conference of national education work, comrade Jiang Zemin and Li Lanqing pointed out respectively that it should help the educators to cultivate the innovative consciousness, the entrepreneurial consciousness and the entrepreneurial ability and that it should explore the effective ways and the corresponding policies and measures of encouraging college graduates to become self-employed. In 1999, the plan of education revitalization action of facing the 21st century made by the Ministry of Education completely puts forward the concept of entrepreneurial education and points out that it should strengthen the entrepreneurial education to teachers and students and encourage them independently to found high-tech enterprise. In 2002, the Tsinghua University and other 9 colleges and universities are identified as the pilot colleges and universities to carry out the innovation and entrepreneurship education by the Ministry of Education, which marks the official launch of the innovation and entrepreneurship education

in our country (Wang and Gao, 2012). Right until today, many schools carry out the innovation and entrepreneurship education using the form of the second classroom. School such as East China Normal University opens the entrepreneurial education course and Donghua University opens the elective course of entrepreneurship and venture capital, etc. The innovation and entrepreneurship has more and more become the focus of the social common concern (He, 2012).

In recent years, in the field of innovation and entrepreneurship education, the scientific research is constantly deepened. Especially with the continuous improvement of research methods and means, newly-developing interdisciplines constantly spring up and the situation of multi-discipline and multi-field joint research firstly shows the scale. The understanding to innovation and entrepreneurship education constantly achieves new breakthroughs and domestic and international research related to innovation and entrepreneurship education has obtained abundant achievements. From the point of view of research contents, it shows three-dimensional propulsion of multiple fields. The traditional field is still concerned by researchers and it constantly has new discovery in deep angle; the new research field has constantly been established and achieved fruitful achievements. From the point of view of research methods, under the premise of continuing to use traditional effective methods, new research methods and means are more and more widely used in study, which provides the guarantee of methods and means for gaining the knowledge of innovation and entrepreneurship education that is close to the actual development situation. At the same time, the use of new methods also has given rise to many new fields. On the whole, the understanding of laws and characteristics of innovation and entrepreneurship education from the research community more and more tends to be systematic and comprehensive and the ecological validity of research is constantly improving and the innovation and entrepreneurship education view from the research community more and more tends to be rational and real, which guarantees the scientificity, pertinence and effectiveness of undertaking innovation and entrepreneurship practice based on research results. We may make this assumption: if synthesizing these research results verified over and over again by the academia, it certainly will form an all-round three-dimensional understanding of laws and characteristics of innovation and entrepreneurship education, which has obvious theoretical significance and practical significance for further integrating research resources, finding research subject and guiding educators to undertake innovation and entrepreneurship education.

However, from the point of view of what we have master the current situation of international and domestic innovation and entrepreneurship education, the

education platform that has integrity, embodies the latest scientific research achievements on innovation and entrepreneurship education and can take on college students' innovation and entrepreneurship, has not yet been established, which is a big drawback. On the one hand, speaking from the academic research, as there is no systematic achievements on university students' innovation and entrepreneurship education, it is not conducive to the all-round development of innovation and entrepreneurship education theory; On the other hand, from the point of view of education practice, as there is no comprehensive university students' innovation and entrepreneurship education theory as the basis and guidance, it makes university students' innovation and entrepreneurship education practice sell at a discount. Above all this leads to a situation: whether in academia or in related aspects of education practice, the cognition and understanding of university students' innovation and entrepreneurship education are all biased, which has seriously restricted the research on university students' innovation and entrepreneurship education. If integrating university educators in different levels and areas to build an education platform for innovation and entrepreneurship of university student, it could effectively overcome the above problems.

Therefore, the aim of this study is to construct an integrated platform for the innovation and entrepreneurship education of university student to carry out university students' innovation and entrepreneurship education in a deep-going way. Through the practice and theory study, update the educational concept, improve the understanding and thinking of innovation and entrepreneurship education, form the common concept of innovation and entrepreneurship education in university and improve education and teaching practice entirely, to guide universities to implement the innovation and entrepreneurship education roundly and to improve the teaching level and education quality.

The existing problems: In our country, the innovation and entrepreneurship education in universities as a whole is still in its infancy and the innovation and entrepreneurship ability of university student is far from the national requirements of talents strategy, of which the role to realize the innovative country goal is still very limited. In Most universities, the innovation and entrepreneurship education still becomes a mere formality or is in a vacant state and even goes through the motions in order to complete the teaching task, in name only (Wang and Gao, 2012).

Curriculum provision lacking scientificity: Although society and university all realize the important significance of carrying out innovation and entrepreneurship education and also carry out this education in practice, what is undeniable is that the innovation and entrepreneurship education has not been

better implemented and supported in the whole education plan. Most curriculum provision of innovation and entrepreneurship education is not science, singly. It could not be combined with the professional course learning closely. Even some universities only do the image project in carrying out the innovation and entrepreneurship education. It has not much substance content. The innovation and entrepreneurship education is basically free from the traditional normal education and mostly carries through amateur guerrilla education using after school practice, which could not effectively improve students' knowledge and skills in innovation and entrepreneurship and at the same time also affects the enthusiasm of students carrying through the innovation and entrepreneurship (Zhu, 2012).

Lack of practice base for innovation and entrepreneurship: In our country, many universities don't have practice base for innovation and entrepreneurship on campus, so it is very difficult for students to take innovation and entrepreneurship training. Moreover, it is not easy to contact practice base off-campus. Due to the college expansion, the number of students increased, leading that enterprises are unable to accept so many students to come and practice. In addition, at present, the main units that allow student to take innovation and entrepreneurship training are state-owned enterprises, among which most are in an adjustment and restructuring period and do not welcome student training and some of which even refused. Even if accepting student training, many enterprises also only allow students to do visit practice. So the student training is often going process, which could not reach the requirement of innovation and entrepreneurship education.

The weak teaching staff: Most university teachers are from school to school, so they do not have practical experience of design in the enterprise, lack of practical ability and also do not understand the requirement of choosing and employing students in enterprises. They could only teach the conceptual theory knowledge about innovation and entrepreneurship. It is difficult for them to guide students to take the innovation and entrepreneurship practice well and help students design career. According to statistics, in our country, among the professional teachers, who have the related working background are less than 10% and even if some teachers have a certain working background, the working time is also short. The present situation of teaching staff is not adapted to the innovation and entrepreneurship education (Peng *et al.*, 2011).

Lack of the cultural atmosphere for innovation and entrepreneurship: The innovation and entrepreneurship education can hardly do without the support of social and campus environment. At present, the innovation and entrepreneurship education has not yet created the cultural atmosphere for innovation and

entrepreneurship. National culture, family culture, enterprise culture and campus culture have not yet given the leading connotation of innovation and entrepreneurship. The enthusiasm and efficiency of enterprise participating in the innovation and entrepreneurship education is not high and the costs and benefits boundary of university-enterprise cooperation is not clear, so it is difficult to deeply carry out university-enterprise cooperation. The lack of innovative culture and the low social participation restrict the innovation and entrepreneurship education to carry out (Liu, 2012).

METHODS TO CONSTRUCTING AN EDUCATION PLATFORM FOR INNOVATION AND ENTREPRENEURSHIP

Constructing scientific curriculum system for innovation and entrepreneurship: Curriculum system plays an important role in the innovation and entrepreneurship education. Systematic and scientific curriculum system for innovation and entrepreneurship could effectively improve the consciousness and ability for innovation and entrepreneurship of students (Zhu, 2012). So, we should reform the traditional training mode, adding the courses about the innovation and entrepreneurship education, enriching students' theoretical knowledge about the innovation and entrepreneurship and establishing the scientific and reasonable curriculum system for innovation and entrepreneurship.

Firstly, it should set up the three platforms of the innovation and entrepreneurship education, the innovation and entrepreneurship training and the entrepreneurship incubation and then set up the course carriers on the three platforms, respectively (Oyetunji, 2009). Among them the course carriers on the platform of the innovation and entrepreneurship education are the theoretical teaching, the activities, the innovation and entrepreneurship training and the cultural festival of innovation and entrepreneurship; the course carriers on the platform of the innovation and entrepreneurship training are the practice base for innovation and entrepreneurship in or out of schools and the college students' scientific research project; the course carriers on the platform of the entrepreneurship incubation are the entrepreneurship garden of undergraduates, as shown in Table 1. After that, it should arrange the course contents in a different way (Jia, 2012). The course should arrange real and meaningful contents, avoiding empty ones. It could arrange these contents in the form of carrying out theoretical teaching, such as the lecture hall for innovation and entrepreneurship, the hero collect of innovation and entrepreneurship and the salon for innovation and entrepreneurship, etc., to show the entrepreneurial spirit, entrepreneurial method, entrepreneurial process and law of successful entrepreneurs; it could also arrange these contents in the form of holding activities, such as the summit forum for

Table 1: Course carriers for innovation and entrepreneurship

Three platforms	Course carriers
Innovation and entrepreneurship education	Theoretical teaching, activities, innovation and entrepreneurship training and cultural festival of innovation and entrepreneurship
Innovation and entrepreneurship training	Practice base for innovation and entrepreneurship in or out of schools and university students' scientific research project
Entrepreneurship incubation	Entrepreneurship garden of undergraduates

Table 2: Course contents for innovation and entrepreneurship

Forms	Main contents
Theoretical teaching	Lecture hall for innovation and entrepreneurship, hero collect of innovation and entrepreneurship and salon for innovation and entrepreneurship, etc.
Activities	Summit forum for innovation and entrepreneurship, seminar for innovation and entrepreneurship, report for innovation and entrepreneurship of outstanding students, lecture of entrepreneurial successful people and entrepreneurial experts, etc.
Mentor guidance of innovation and entrepreneurship	Defense meeting of innovation and entrepreneurship teams and discussion meeting of innovation and entrepreneurship project, etc.
Cultural festival of innovation and entrepreneurship	Career planning competition, entrepreneurship plan competition, "innovation and entrepreneurship cup" university students debate and poetry recitation contest, etc.
Innovation and entrepreneurship training	Consciousness training for innovation and entrepreneurship, entrepreneurship simulation training, diathesis developing training for innovation and entrepreneurship and management training for innovation and entrepreneurship teams, etc.

innovation and entrepreneurship, the seminar for innovation and entrepreneurship, the report for innovation and entrepreneurship of outstanding students, the lecture of entrepreneurial successful people and entrepreneurial experts, etc., to make entrepreneurial successful people carry through face to face communication with students, helping students to analyze the causes of entrepreneurial success and failure and providing theoretical guidance for students, etc., as shown in Table 2.

Constructing practice base for innovation and entrepreneurship: Firstly, universities must establish practice base for innovation and entrepreneurship on campus and let students enter into the factory to learn various practical skills after learning certain theoretical knowledge about innovation and entrepreneurship (Cheng and Jiang, 2010). Only in this way can it improve students' practical ability, strengthen students' mastery of innovation and entrepreneurship skills and better carry out innovation and entrepreneurship in the future.

Secondly, it could also set up the cooperative practice base for innovation and entrepreneurship outside campus. It is obviously not enough for university to establish practice base for innovation and entrepreneurship only depending on its own strength, so needing enterprise's strong support and participation. Therefore, universities should rely on their own schools to establish a large number of excellent practice bases off-campus by the mode of alliance teaching of school and enterprise and let students enter into posts (Ding *et al.*, 2009). Students come into contact with the real society, which not only can increase the understanding of the realistic condition and development level of their own major and related industries and increase entrepreneurship skills, but also can make students establish correct outlook on life and values (Jiang and Cheng, 2013).

Improving the professional level of teaching staff for innovation and entrepreneurship: To strengthen students' innovation and entrepreneurship education, first of all it should cultivate the teaching staff having higher creative thinking and creative spirit and only continuously strengthening the construction of teaching staff for innovation and entrepreneurship and improving the professional level, can it cultivate the students with innovation and entrepreneurship quality:

- It should encourage teachers to walk out of campus and to enterprise to learn, so as to improve their practice ability. If the teachers do not experienced a lot of practice, it is very difficult to teach well the course of innovation and entrepreneurship. It also could try to rotate posts between teachers and enterprise personnel, such as to not only train teachers, but also let the personnel who are from the front line of enterprise and have abundant on-site practice experience give students a deeper explain in detail, killing two birds with one stone.
- It should strengthen teachers' training and learning for innovation and entrepreneurship knowledge and skills.
- It should encourage and support teacher to enter oneself for an examination the master graduate student and doctoral student of the key colleges and universities, or engage in advanced studies, in order to improve the academic level.
- It also could extensively absorb entrepreneurship experts at home and abroad on the existing basis, to join the teaching staff; it could still make full use of social resources, inviting entrepreneurs, entrepreneurial successful people, experts and scholars and even successful entrepreneurial university graduates to directly guide in the guidance work for innovation and entrepreneurship.

Creating a cultural atmosphere and strengthening the innovative consciousness and entrepreneurial spirit: The formation of innovation and entrepreneurship idea could not fully rely on the traditional training activities, but need the long-term edification of campus culture and enterprise culture. It not only needs the correct guide of school, but also needs the active cooperation of student. Universities must make the transition from the pure knowledge education, employment education to the comprehensive quality education of innovation and entrepreneurship in the managerial guiding ideology and gradually build the new education idea of taking the innovation and entrepreneurship practice as the core.

The main body of innovation and entrepreneurship practice is still student and how to change students' concept of traditional learning and employment is the key of the success or failure of the innovation and entrepreneurship. Therefore, schools should make full use of campus network, radio, window and other propaganda position, to increase publicity, establish model, build the atmosphere of innovation and entrepreneurship on campus, let students feel the innovative consciousness and entrepreneurial spirit since enrolled and encourage students to become self-employed. It may also employ well-known industry experts and entrepreneurs as the visiting professor to regularly hold the special lecture on entrepreneurship for students. It could motivate students' consciousness of innovation and entrepreneurship through their precept (Ding *et al.*, 2009).

Establishing a sound reward mechanism of innovation and entrepreneurship: To motivate and encourage college students to do innovation and entrepreneurship, schools should set up "special scholarship to do innovation and entrepreneurship", rewarding students and teachers for outstanding contribution in the aspect of innovation and entrepreneurship. It should offer certain spiritual and material rewards to the students and teachers who do well in innovation and entrepreneurship or achieve excellent result in taking part in the national innovation and entrepreneurship competition (Eludire, 2011). Only perfect reward mechanism can attract more teachers and students to participate, can make more and more innovation and entrepreneurship talents stand out and can inspire college students' enthusiasm of doing innovation and entrepreneurship (Zhang *et al.*, 2010).

Building a network platform for innovation and entrepreneurship: Many foreign universities actively build network platform for innovation and entrepreneurship and achieve very good effect, which is worth our learning and lessons. Building a network platform to connect politics, production, learning and research and drawing support from the effective and

economic means internet to integrate all kinds of resources in or out of schools and set up the information sharing and information exchange mechanism of multiple parties including university, entrepreneurial college students enterprise, society and others (Rad *et al.*, 2012), could provide effective support and guidance for students' innovation and entrepreneurship activity.

CONCLUSION

By constructing the education platform for innovation and entrepreneurship, to carry out the innovation and entrepreneurship education and cultivate students' innovative quality and entrepreneurial ability, not only can effectively alleviate the current severe employment pressure, but also can make university students fully reflect personal value in society. But at the same time, we should also know that the innovation and entrepreneurship education in universities of our country as a whole is still in its infancy and university students' innovation and entrepreneurship ability is far from the national requirements of talents strategy, of which the role to realize the goal of an innovative country is still very limited. Therefore, it must conduct the thorough research to the innovation and entrepreneurship education and explore the effective ways to build the education platform for innovation and entrepreneurship, in order to better carry out innovation and entrepreneurship education and improve the level of innovation and entrepreneurship education.

ACKNOWLEDGMENT

This study is supported by the General-planning Subject of the Twelfth Five-Year Plan of Educational Science of Jilin Province under the grant No. GH14243 and the Teaching Research Subject of Changchun University under the grant No. XJYB14-02.

REFERENCES

- Cheng, X. and X. Jiang, 2010. Research on the application-oriented talents cultivation and practice teaching reform for industrial design of mechanism. *Mod. Educ. Sci.*, 5: 161-162.
- Ding, Y., S. Zhang and Q. Zhou, 2009. A brief analysis on the construction of innovation and entrepreneurship training mode in independent colleges. *Culture History Vision Theor.*, pp: 77-78.
- Eludire, A.A., 2011. The design and implementation of student academic record management system. *Res. J. Appl. Sci., Eng. Technol.*, 3(8): 707-712.
- He, Y., 2012. Research on training methods of innovation and entrepreneurship talents from student perspective. *Sci. Technol. Innovat. Herald*, 18: 255-256.

- Jia, X., 2012. Research on applied undergraduate colleges and universities focusing on construction of innovation and entrepreneurship training system: Taking Suzhou institute as an example. *J. Chifeng Univ. Natural Sci. Edn.*, 28(9): 192-194.
- Jiang, X. and X. Cheng, 2013. Study and practice on manufacturing practice for mechanical industrial design. *Res. J. Appl. Sci., Eng. Technol.*, 5(14): 3736-3740.
- Liu, H., 2012. Improving the mechanism of college students' innovation and entrepreneurship training. *Shandong Textile Econ.*, 8: 119-120.
- Oyetunji, E.O., 2009. Some common performance measures in scheduling problems: Review article. *Res. J. Appl. Sci., Eng. Technol.*, 1(2): 6-9.
- Peng, Y., Q. Sun and J. Yang, 2011. Exploration and practice on the training mode of the applied talents majoring in Machinery. *J. Jilin Edu. Institute*, 27(6): 143-145.
- Rad, M.P., R. Pourshaikh and H. Alinejad-Rokny, 2012. Conceptual information retrieval in cross-language searches. *Res. J. Appl. Sci., Eng. Technol.*, 4(12): 1714-1720.
- Wang, L. and Z. Gao, 2012. Research on college students' innovation and entrepreneurship training. *Res. College Stud.*, 10: 96-109.
- Yu, J., 2012. Research on countermeasures and the essential connotation of innovation and entrepreneurship education in universities. *Edu. Stud.*, 9: 81.
- Zhang, Y., L. Zheng, J. Sun and T. Yu, 2010. Research on students' innovation and entrepreneurship training in colleges and universities. *Edu. Space*, pp: 155-156.
- Zhou, D., 2009. International comparative analysis on entrepreneurship education. *J. Jiangxi Normal Univ.*,
- Zhu, X., 2012. Historical development and enlightenment of Chinese college students' innovation and entrepreneurship training. *Ind. Sci. Tribune*, 11(8): 158-159.