

Role of Innovation and Entrepreneurship Education in Improving Employability of Medical University Students

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ABSTRACT

In the macro-environment of current social development, medical college students' employment, entrepreneurship has become a hot issue of social concern. Innovation and entrepreneurship education is to cultivate personnel with basic qualities of entrepreneurship and pioneering personality, which requires entrepreneurial awareness, innovative spirit for talents. Also, it should orient to the society, provide targeted educational activities for talents who have already started undertaking or have entrepreneurial planning to cultivate their entrepreneurial ability and innovative thinking in stages and levels. Innovation and entrepreneurship education is helpful to cultivation of innovative spirit and innovation ability of medical college students, and it is also an indispensable condition for cultivating medical students' employability. This paper defines employability of medical college student, analyzes importance of cultivation of the ability. It expounds the role of innovation and entrepreneurship education in improving employability of medical college students, finds the three acting points for cultivating medical college students' employability in innovation and entrepreneurship education, and ultimately establishes the path for enhancing medical college students' employability in innovation and entrepreneurship education, laying a solid theoretical foundation for improving medical college students' employability. In the innovation and entrepreneurship education of medical college students, it is emphasized that students should have strong creativity in entrepreneurial sense, have close contact with industrial development, provide corresponding service to industrial development and seek sustainable development of entrepreneurial project.

Keywords: innovation and entrepreneurship education, medical college students' employability, acting point, improvement path

INTRODUCTION

Cultivation of employability of medical college students concerns their future development. Innovation and entrepreneurship education can obviously promote improvement in medical college students' employability. It is regarded as the main way to improve employability of medical college students (Chen et al., 2015). Wang Dacheng et al. believed that: employability is an important part of career management. Analysis of interpretation of employability by Western scholars and organizations reveals that not every dimension of employability needs enterprise participation, and not every dimension of employability has the possibility of enterprise participation (Cheng et al., 2017; Webber, 2017; Salinas and Pulido, 2017). Employability of medical college students means that they should have logical thinking ability, knowledge and skills, teamwork, interpersonal communication and communication skills, and can complete a series of work as required by the employer. This is the key for medical college students to adapt to industrial development and improve their social adaptability, which is also a major ability for medical college students to cope with the complicated social environment and constantly improve themselves (Cusumano, 2016; Or-Kan, 2017). In innovation and entrepreneurship education, cultivation of employability of medical college students must base itself on implementation of enterprise participation model,

Contribution of this paper to the literature

- Descriptive analysis of the model used in this study is made, and reliability of this study is verified by data.
- It uses mathematical model for the first time to study the role of innovation and entrepreneurship education in improving college students' employability, which is innovative.
- The paper analyzes the acting points of cultivation of medical college students' employability in innovation and entrepreneurship education, which lays the foundation for the future related research.

analyze industry situation and correspond it with innovation and entrepreneurship education, and take employer needs- based education and training as an important acting point. Also, it should establish the "school-enterprise cooperation" related curriculum system, supplement analysis and guidance of industry situation, clarify employment relationship and interests-based improvement path to maximize the promotion role of innovation and entrepreneurship education in improving employability of medical college students (Guan et al., 2015; Serneels et al., 2017; Secim, 2017).

LITERATURE REVIEW

Status of Foreign Research

Cultivation of medical college students' employability concerns whether they can maintain sustainable and healthy development as it is essential for medical college students to adapt to social development environment, social development requirements. However, in cultivation and promotion of medical college students' employability, the ability should be defined (Huang, 2015; Li, 2017; Link et al., 2017).

Since the beginning of the 21st century, many experts and scholars have maximally made up deficiencies in employability research. The research perspective is focused on the three dimensions of "employers and needs", "education and supply", "balance and match" for a more profound interpretation of connotations of employability (Minguillo and Thelwall, 2015). The term "employability" is widely used in the UK. Confederation of British Industry points out that "employability is an individual's quality and ability to meet the changing needs of employers and customers, which helps one achieve his expectations and potential." Brennan et al. argued that employability is employee's ability to maximally meet the employer's needs, or better fulfill the task assigned by the employer (Ndembi, 2015; Boh et al., 2016). These abilities include knowledge, logical thinking ability, studious quality, self-management skills and interpersonal communication skills, etc. (Honig et al., 2017).

Status of Domestic Research

As early as 2007, domestic scholars have made clear comparison and analysis of employability of full-time and in-service doctoral students, suggested that general colleges have certain limitations in cultivation of medical college students' employability, which is also the case for innovation and entrepreneurship education as their employability does not directly correspond to employers' need (Ramia et al., 2016). Innovation and entrepreneurship education and training model should be closely linked with the industry, employment relationship should be clarified by real interest relationship, which is an acting point for innovation and entrepreneurship education to improve medical college students' employability (Singh et al., 2015; Flaherty et al., 2017).

METHODS

In the innovation and entrepreneurship education, training or upgrading of medical college students' employability should base itself on changed training model to correspond with the industry. Also, efforts should be made to strengthen education and training activities oriented to employers' needs, thus maximizing the role of innovation and entrepreneurship education in cultivation of medical college students' employability (Seixas et al., 2015; Gregorius, 2017).

By choosing enterprise participation model implementation X1, correspondence to the industry X2, training oriented to employers' needs X3 as independent variables, role of innovation and entrepreneurship education in improving medical college students' employability as dependent variable Y, the acting points in cultivating medical college students' employability in innovation and entrepreneurship education are studied and verified. First, an analysis of descriptive results is made as shown in **Table 1** (Blonder and Sakhnini, 2017).

Table 1. Descriptive results

Dependent Variable: Y			
Method: Least Squares			
Included observations: 97			
R-squared	0.7011	Mean dependent var	16.4070
Adjusted R-squared	11.1574	S.D. dependent var	14.4784
S.E. of regression	15.9682	Akaike info criterion	3.5605
Sum squared resid	31.1462	Schwarz criterion	4.9651
F-statistic	1.7969	Durbin-Watson stat	0.8034
Prob(F-statistic)	0.0456		

Table 2. ADF single root test results of college students' employability

---	T statistics	prob.*
Comprehensive statistics	0.47	0.000
X ₁	3.26	---
X ₂	2.96	---
X ₃	2.14	---

As can be seen from **Table 1**, model R² value is 0.7011, indicating that regression term accounts for as high as 70% of interpretable part of the dependent variables. It suggests that choice of independent variables is appropriate, and the regression results have a certain reference value. The test values of AIC and SC are 3.5605 and 4.9651, respectively, indicating that the model used in this study is validated by Akaike information criterion and Schwarz information criterion. Therefore, the model used in this study is suitable for analyzing the sample data obtained from the survey. P value of the dependent variable Y is 0.0456, indicating that the estimated value of the dependent variable is credible at a significance level of 5%, i.e. the dependent variable estimate obtained from the model used in this study is very close to the actual value (Xu et al., 2015; LaChausse, 2017).

In order to test the change rule of mean and variance of college students' employability over time, and prove that the specific time point is independent of any two time points, smoothness detection of college students' employability is necessary. The ADF single root test results are shown in **Table 2**.

The statistical results of **Table 2** show that t statistic is 0.47, which is below the values of different significance levels. Therefore, it can be concluded that the research results of college students' employability are stable and the results are highly credible (Nwagu et al., 2017; Akre, Suris, 2017).

Acting points to cultivate medical college students' employability in innovation and entrepreneurship education:

Focus on Implementation of Enterprise Participation Model

The purpose of innovation and entrepreneurship education is to cultivate innovative spirit and innovation ability of medical college students. Innovation and entrepreneurship will naturally form a cooperative relationship with enterprises. In project cooperation, enterprises and individual students will form employment relationship. In cultivation of medical college students' employability, innovation and entrepreneurship education should pay attention to construction of enterprise participation model (Zhang, 2017; John et al., 2017).

Pay Attention to Analysis of and Correspondence with the Industry Situation

In innovation and entrepreneurship education, the key to improve employability of medical college students not only lies in enabling students to participate in enterprise, but also in instructing students to correctly grasp the internal situation of the industry. In innovation and entrepreneurship education, clear analysis should be made based on development status, development trend of different industries, to strengthen comprehensive cultivation of medical college students' employability based on industry requirements (Trezek, 2017).

Education and Training should be based on Employers' Needs

China's colleges and universities pay more and more attention to the development of innovation and entrepreneurship education among medical college students, and put forward that innovation and entrepreneurship of medical college students should meet the market needs and adapt to industrial development trend, and make a series of reforms to improve employability of medical college students (Krause and Lopez, 2017).

RESULTS

Path to improve medical college students' employability in innovation and entrepreneurship education:

Establish "School-Enterprise Cooperation" related Curriculum System

Innovation and entrepreneurship education should see supporting medical college students to carry out social entrepreneurship as the ultimate goal, take practical education activities as the main content of the education system, carry out relevant social research, experimental research activities, guide students to the understanding of industrial trend and status via student participation, strengthen cultivation of medical college students' employability to lay the foundation for sustainable development of medical college students' entrepreneurship. Curriculum is the core of undergraduate education, also a bridge connecting expected learning results and effectiveness of curriculum implementation, while students are the most direct experiencers of curriculum implementation effect and beneficiaries of the curriculum. However, practice activities simply focus on social research, lacking experimental research activities. There is need to integrate "school-enterprise cooperation" related curriculum system into innovation and entrepreneurship education, so that enterprise visit, industrial structure understanding, participation in enterprise research projects constitute the major curriculum system, to more directly enhance medical college students' awareness of serving enterprises, industries and markets and promote improvement in their employability (Zhang and Xi, 2015; Clark, 2017).

Supplement Industry Situation Analysis and Guidance Process

In path construction of innovation and entrepreneurship education to improve medical college students' employability, industry situation analysis and guidance process should be supplemented to promote comprehensive development of students' employability from the perspective of industry development. Employability of medical college students includes the dimension of "balance and match". The key to strengthen medical college students' employability lies in accurate analysis and guidance of industry situation. Clear, systematic and objective analysis should be made on industrial development status. Also, students should be explained with the reason for the industrial development status, accurate judgments should be made on future development trend of the industry and industrial development prospects should be conveyed to students, to ensure that entrepreneurial development of medical college students can match with industrial development, so that their employability maintains balanced development (Soengas-Pérez and Assif, 2017).

Show Students the Relationships of Employment and Interest

The dimension of "employer and demand" is the core of rapid increase in employability of medical college students. How to educate students in ability of this dimension is essential. First, we must show the relationships of employment and interest to students. Employment relationship is generated during the process of satisfying the employer's business requirements and completing the task assigned by the employer. Interest relationship is also relatively simple and clear, that is, economic, material or spiritual interests to be obtained in bilateral cooperation. This relationship is a prerequisite for the formation of employment relationship. In the innovation and entrepreneurship education of medical college students, establishment of relevant curriculum system of "school-enterprise cooperation" model is to maintain mutual docking between innovation and entrepreneurship education and enterprises needs, to ensure that students' entrepreneurial projects can adapt to enterprises, industries, markets so that interest relationship can be established, thus forming employment relationship between student entrepreneurship and market development, which promotes sustainable development of medical college students' innovation and entrepreneurship (Hershkovzt and Forkosh-Baruch, 2017).

DISCUSSION

Implementation of innovation and entrepreneurship education means great significance for the current construction of innovative country, deepening the reform of higher education and improving personnel training quality. How to effectively carry out innovation and entrepreneurship education in colleges and universities, cultivate the awareness of self-employment, entrepreneurial psychological quality and employment ability of medical college students has become the focus of college education. In innovation and entrepreneurship education, construction of a corresponding path should focus on curriculum system, industry situation analysis and clarification of relationship of employment and interests to students, so as to achieve the purpose of enhancing medical college students' employability (Putman, 2017).

In implementation of enterprise participation model, focus should be given to introducing business development of enterprises to students. Only after understanding business contacts of enterprises, students can

determine whether cooperation is possible between innovation and entrepreneurship projects and enterprises, which is the prerequisite for employment relationship, also an important prerequisite for enhancing employability of medical college students in innovation and entrepreneurship education, and also a main acting point to improve employability of medical college students (Gabel and Dreyfus, 2017). It is necessary to guide medical college students to understanding of employment relationship from the perspective of industry development, to lay a good foundation for perfecting employability of medical college students, and ensure innovation and entrepreneurship of medical college students can meet the practical needs of industrial development. In the training of innovation and entrepreneurship education, relevant industry training activities should be carried out so that mutual employment relationship can develop between medical college students and industry development, which directly improves employability of medical college students (Stylianides and Stylianides, 2017).

CONCLUSION

Innovation and entrepreneurship education means prominent significance for improvement of medical college students' employability. With great promoting role, it can affect overall development of medical college students' employability. To this end, further research and exploration is needed to seek acting point for innovation entrepreneurship education to enhance medical college students' employability, maximize the role of innovation and entrepreneurship education in improvement of medical college students' employability and constantly improve the path. This requires scholars and teachers keep the idea of advancing with the times, explore the relevance between employability cultivation and innovation and entrepreneurship education from various dimensions.

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