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Article

Role of Counsellors in the Cultivation of Innovative Talents from Students' Perspective*

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Abstract

Innovative talent training as an immense and complex system engineering matters the universities, governments and the whole social environment. Taking students' perspective as the entry point, this paper focuses on the functions the university Counsellors play in the cultivation of innovative talents from students' perspective. The purpose is to clarify to what degree students have so far understood the cultivation of innovative talents, and what's the role of university counsellor in fostering the innovative talents from the students' perspective. A questionnaire survey conducted among students show that it is important for university counsellors to participate in the innovative talent cultivation. With reference to pertinent literature, we build a framework system for the cultivation of innovative talents in colleges and universities, based on which, a thorough analysis is made on the role the university Counsellors should play in cultivating the innovative talents.

Keywords

Innovative Talents • Counsellors • Students' Perspective • Talent Training Model • Role

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As the innovation-driven development strategy has been proposed and implemented, innovation has become the primary force leading the development. In all walks of life, people struggle to find breakthroughs for innovation and improve their innovation capacities. For a university that shoulders the critical mission for talent training, innovative education must come first, and innovative talent cultivation should be regarded as the ultimate goal of education system reform (Kaltsounis, 2011).

In recent years, the study of innovative talent training has been focusing on its concept and model and the innovative instruction methods. Many universities have also set up experimental class for innovative talent cultivation, but it yields less. Every year, there are students who withdraw from the experimental class since they do not adapt to its teaching model. Why is it? This model focuses on the form but neglects the ideological and innovative quality education for the students. University counselors, as managers who manage student affairs and have the most intimate relationship with students, also shoulder the function for carrying out students' ideological and political education and guiding their values of life (Mellander & Florida, 2011). Then, we question that it is possible to organically integrate the counsellors' works into the innovative talent cultivation process in order to facilitate the implementation of this process?

Innovative talent cultivation from students' perspective and role of counsellors

Survey description

In order to better determine to what degree the students understand the innovative talent training during the innovative education reform and what influences the university counsellors have on the innovative talent cultivation, as well as what's the role they play in the process from the perspective of students, this paper conducts a questionnaire survey among undergraduates from the freshman year to senior year in a comprehensive university in Beijing, who major in various disciplines (Little, Gearhart, Curry & Kafka, 2003). A total of 600 questionnaires have been distributed, among which, 569 have been collected as valid copies. We have drawn the relevant conclusions from analysis of the findings (He, Chen & Yue, 2018).

Students' recognition of innovative talent cultivation

To what degree students understand the cultivation of innovative talents As shown in Fig. 1, students have an understanding of the innovative talent cultivation. From these findings, 46.9% students have a general understanding of innovative talent cultivation, while those who do not know much or know nothing about it account for 38.2%, showing that it is not optimistic about the education effect the innovative talent cultivation implemented in colleges and universities has played. It may be attributed to the fact that the propaganda work has not been in place. Most students can't correctly set their own learning goals, let alone the innovation consciousness and skills.

What are the innovative qualities the students believe the innovative talents should have As shown in Table 1, the findings are given on innovative qualities that students believe that innovative talents should have? It can be seen from the findings that students have less recognition of non-intellectual factors such as innovative personality, motivation, enthusiasm and consciousness in the cultivation of innovative talents (Torrance, 1959), but hold more for innovative thinking, cooperative spirit, and practice ability. Therefore, in the cultivation of innovative talents, universities should attach great importance to the cultivation of students about non-intellectual factors, which is a long-term system engineering.

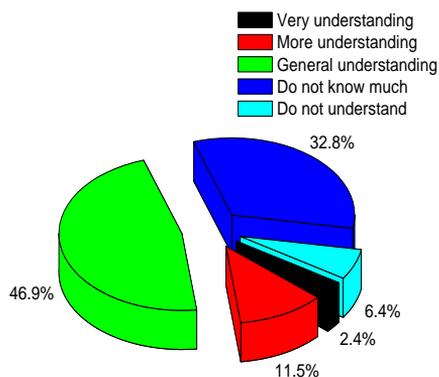


Figure 1. College Students Learn about Innovative Talents.

Table 1
Innovative Talents should have the Quality

Innovative quality	Choose the number of people	Percentage
Creative thinking	453	79.6%
Imagination ability	451	79.3%
Team spirit	448	78.7%
Desire to know	377	66.3%
Practical ability	407	71.5%
Perceptive ability	306	53.8%
Self-control	293	51.5%
Innovative personality	243	42.7%
Memory capacity	380	66.8%
Extensive knowledge	388	68.2%
Interest	343	60.3%
Motivation	275	48.3%
Perseverance	349	61.3%
Positive	257	45.2%
Conscious	246	43.2%

Role of counsellor in the cultivation of innovative talents from students' perspective

Influence of the counsellor on the development of students' innovative qualities We learn from the findings shown in Fig. 2 that there are 145 students who believe the Counsellors have a great influence on the development of students' innovative quality; 362 students who think them general, and only 63 students argue there is no any influence. Among them, some of the students who insist there is no influence are freshmen newly

enrolled. They have less understanding of counsellors' responsibilities and innovative talent cultivation. Therefore, we believe that Counsellors will play a certain effect on the cultivation of the innovative qualities of students.

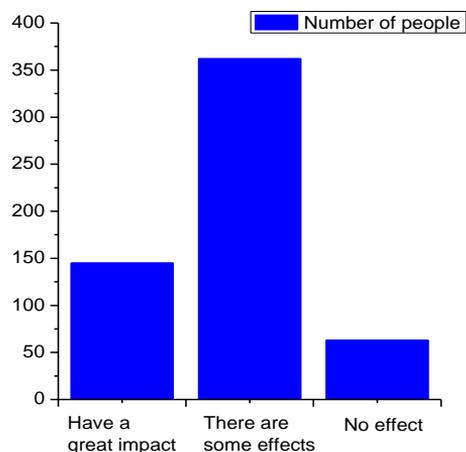


Figure 2. Counsellors influence on the culture of innovation quality of university students.

Students' satisfaction with counsellors' innovation Quality The findings in Fig. 3 reveals that there are 155 and 34 students who are not satisfied and dissatisfied with the counsellors' development for innovative quality, 33.2% of the headcount, while only 28.3% students believe to be very satisfied, or more satisfied, suggesting that the Counsellors neglect the development of the innovative quality of students in their daily works, and needs to be strengthened in the future works.

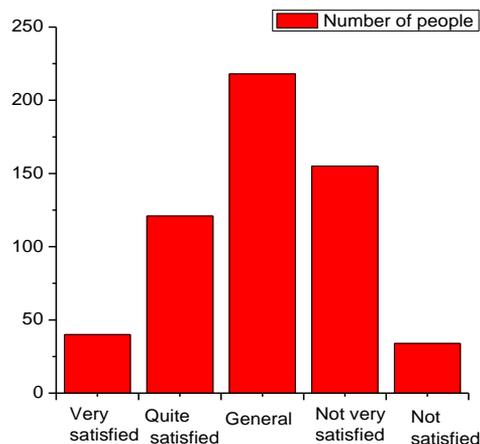


Figure 3. College students are satisfied with the innovative qualities of counsellors.

Factors students most lack for innovation: The findings in Fig. 4 show that the current innovation atmosphere, innovation guidance and innovation skills are factors students most lack for innovation, accounting for 40.2%, 27.8% and 13.5% respectively, while those who lack innovation awareness account for only 5.6%.

The above facts show that due to lack of innovation atmosphere and guidance, innovation activities have not yet been implemented (Roberts, 2008). In this situation, universities should focus on solving relevant problems in their future works.

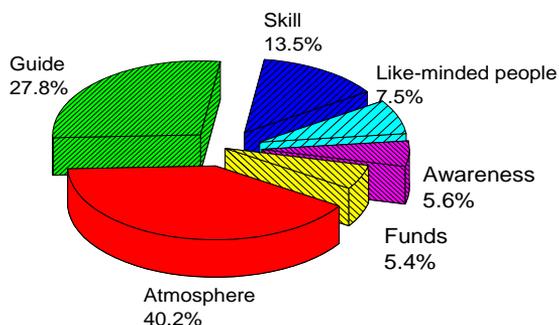


Figure 4. The most lacking factor of college students' innovation.

Access to innovative practice opportunities: The results are shown in Table 5. The opportunities provided by the course teachers for participating in activities and academic competitions organized in universities are regarded as main ways for students to access the innovative practices. The number of students who follow the Counsellors is minimal, only 125, accounting for 21.7. %.

Conclusions from the findings

From the students' recognition of and counsellors' role in the cultivation of innovative talents, it is concluded that there are some problems in the cultivation of innovative talents in universities:

Students' recognition of the training objectives of innovative talents is incomplete enough. They do not understand the basic requirements for innovative talents. All these phenomena show that the relevant propaganda and instruction work in universities has not yet been in place (Hayes & Varley, 1965).

Currently, Counsellors are less involved in the process of innovative talent training. The findings show that it is rather necessary for counsellors to participate in this process. In the future work, universities and their Counsellors should be aware of this, reposition the Counsellors and the role they should play in the development of innovative talents in universities (Kuh, 2009).

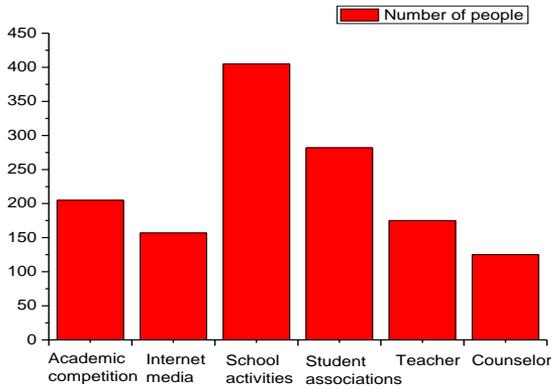


Figure 5. Ways to get creative practice.

Role of counsellor in innovative talent cultivation from students' perspective

In order to address the problems occurred in the cultivation of innovative talents in universities, this paper makes a summary on the positions and roles of Counsellors in the cultivation of innovative talents with the findings from survey as the entry point.

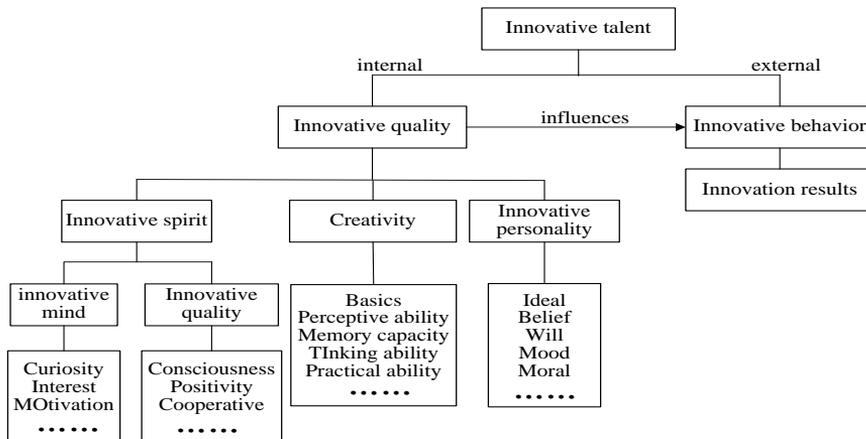


Figure 6. Conceptual illustration of innovative talent.

Framework of innovative talent cultivation system

Concept of innovative talents Different literatures define the innovative talents in different ways. Based on the previous definitions, this paper defines the innovative talents from both internal and external aspects.

The inherent standard innovation quality includes innovation, capacity, spirit and personality, while intrinsic standards can influence external standard innovation behaviours, that is, whether it can form the innovation results. As shown in Fig. 6, the concept of innovative talents is illustrated (Fan, Qiu & Zhang, 2012).

Support mechanism of innovative talent cultivation system Many universities have made detailed schedules for innovative talent training models, objectives, and teaching methods, but they have neglected such a fact that, in the process of innovative talent cultivation, universities should not be "alone in their struggle", but build up a diversified and open type framework system mechanism for internal and external harmony to ensure smooth implementation of innovative talent training.

(1) Linkage mechanism for educational and student works

Teaching and student works are two important systems for fostering the innovative talents. In the past, universities only focus on the innovative education reform for curriculum system and teaching methods in teaching work, but hardly imagine such a fact that the student work is equally important (Xiang, 2007). Therefore, we should establish a linkage mechanism for educational and student works, that is, while constructing teaching works, we should attach great importance to the organization and development of student works such as extracurricular activities, student associations, and social practices, and train students' hands-on and teamwork skills and other innovative qualities. Of course, this process is inseparable from the involvement of college counsellors.

(2) University-industry cooperation and joint construction mechanism

University-industry cooperation and joint construction mechanism can provide and build a practical platform for students' innovative education to implement the instruction model combined with production, education and scientific development, and transform the students' innovative practice results into real products for popularization and application, which can not only enhance the independent innovation capacity of industries, but also greatly stimulate the enthusiasm of students to innovate things, improve their awareness of innovation and hands-on skills (Perna *et al.*, 2008; Mackinnon, 1963). This process should be inseparable from communication and coordination among counsellors, students, and industries for educational works.

(3) Inter-university exchange training mechanism

With the development of the globalization age, education globalization has become an inevitable trend, this requires the innovative talents should have a global vision. Therefore, in the process of training innovative talents, we should actively build an inter-university exchange platform, especially to facilitate the exchange between students, allow them to experience the learning culture from different countries and universities. Students learn from each other through communication and broaden their own horizons (Normile, 2007). Counsellors directly responsible for the student works. should do a good job for organization and guidance in the process.

Role of Counsellors in the cultivation of innovative talents

As described above, according to the analysis of the survey conducted for the role of Counsellors in the cultivation of innovative talents from the perspective of students, combined with the support mechanism of the innovative talent cultivation system, it is concluded that, in the process of innovative talent training, Counsellors should play the following effect, as shown in Fig. 7 (Bernardo & Baranovich, 2014; Zhang, Li & Zhang, 2017):

Leader for innovative talent cultivation As a member who has the most intimate relationship with the students, college Counsellors should change their minds in a timely manner, shift the focus of their works from the traditional daily management to the cultivation of innovative talents, and do a good job for leading students' thinking, learning and life in the process. They should communicate frequently with students, well make propaganda and instructions on the innovative talent training, lead students to change their thoughts to correctly understand themselves, know well the demands of society for talents, clarify learning objectives, well plan their careers, and guide students to develop independent learning and self-restraint (Mable, 1991), strive to improve their own quality; when students encounter difficulties and lost in confusion, timely education and dredging should be made according to the students' own situation, leading them to find the way forward.

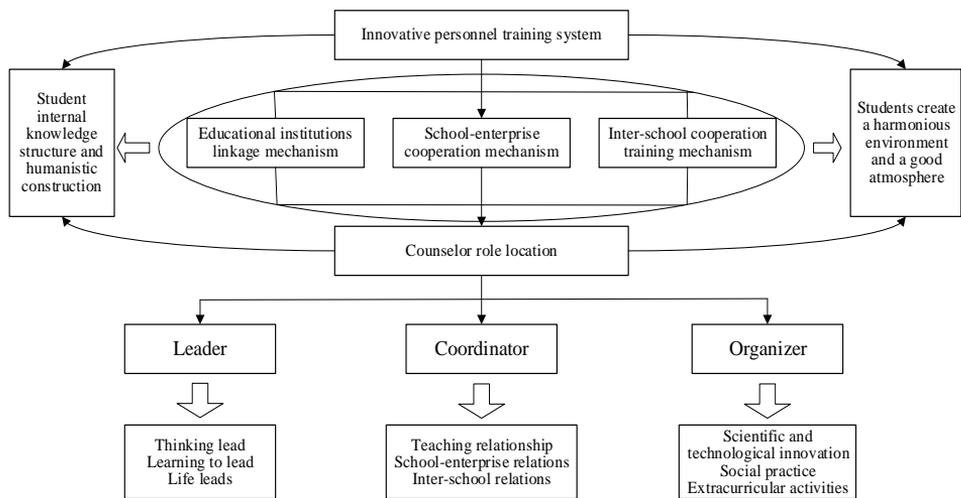


Figure 7. The Orientation of Counsellors in Innovative Talents Cultivation System.

Coordinator for innovative talent development: In the support mechanism of the innovative talent cultivation system, not only does it come to the internal linkage mechanism for education and student works in university, but also the cooperation relationship between off-campus industries and universities is also involved. So, in order to better achieve the goal of innovative talent training, first of all, counsellor should act as an excellent coordinator for teaching relations to coordinate the interaction between professional teachers and students, and create more opportunities for teachers to provide specialized guidance for students' innovation works, so that students ask for professional teachers every time they encounter problems. Educational affairs and student works should be well integrated to serve for innovative talent cultivation. Second, counsellor should be a good coordinator for university-industry relationship, actively communicate with enterprises, build more

practice bases for students, understand the demands of enterprises for talents, and guide students to make relevant knowledge and quality reserves (Woosley, Hyman & Graunke, 2004). Finally, counsellor should be coordinator for the inter-university relationship. As the direct manager responsible for the student works, the counselor should guide the students or the student association to organize or participate in inter-university exchanges and competitions. In this way, not only can the resources be complemented each other, but also the students' horizons can be broadened.

Organizer for innovative talent cultivation Counsellors should make a good use of various resources to build platforms and opportunities for students to exercise and display themselves, organize students to actively participate in technological innovation activities to enrich their involvement forms, develop students' potential, cultivate students' innovative consciousness and innovative quality, and organize students to participate in social practices and extracurricular recreational activities, and guide them to develop their overall qualities for social practice and teamwork skills, and create a good atmosphere for innovation events.

In addition to being a leader, coordinator and organizer for innovative education, college Counsellors should also focus on their own quality learning, improving their innovative quality and capacity. Of course, it is also inseparable that more learning opportunities should also be provided for them by universities, doing a good job in the construction of the counsellor team.

Conclusion

Cultivating innovative talents is the unshrinkable duty of colleges and universities. Although in recent years, great strides have been made towards the development of innovative talent training model, it is not optimistic about the effect. This paper attempts to explore what's the role of the university Counsellors who are intimate with students in the process of innovative talent cultivation from the perspective of students, and comes to the following conclusions:

It is known what's the current situation of innovative talent cultivation in college and universities and whether or what influences the counsellors play on it by means of the questionnaire survey, and from the student's perspective. It is definite that the Counsellors should participate in the cultivation of innovative talents.

Based on the pertinent literature, based on the survey results, a framework system is built for the cultivation of innovative talents in colleges and universities.

On the basis of the innovative talent cultivation framework system, taking the results from the questionnaire survey as the entry point, it is analyzed about the role of Counsellors in the innovative talent cultivation in colleges and universities is analyzed in detail.

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