

## Research on Cultivating Innovative Thinking Ability in Applied Undergraduate Colleges Based on Aesthetic Education Concept

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**Abstract:** The cultivation of innovative talents is an inevitable choice in the rapid development of modern higher education and global economic integration. Nowadays, it has become an important development goal of colleges and universities, especially local colleges and universities. Higher education is an important measure to improve the ability of independent innovation and implement the strategy of strengthening the country with talents. The cultivation and promotion of college students' multi-level practical ability is one of the main research directions in the development of higher education in our country. In order to meet the needs of social development, many colleges and universities are transforming into application-oriented ones. Without innovation, enterprises will have no space to survive, and the national economy will not develop. The problematic process of the teaching process guides students to learn and master the course knowledge. Applied universities should not only target the training of talents in schools to cultivate innovative talents, but also reflect on the process of talent cultivation. To analyze market demand and combine the school's own internal environment and external environment, we are committed to cultivating the talents needed by the market.

### 1. Introduction

Under the background of the classified development of ordinary colleges and universities and the transformation of local undergraduate colleges and universities to applied technology-oriented ones [1]. It is an indisputable consensus that local undergraduate colleges should aim at training applied talents by dislocation competition and differential development [2]. Improving the ability of independent innovation and building an innovative country are the core of China's development strategy and the key to improving comprehensive national strength. The cultivation of innovative talents is an inevitable choice in the process of rapid development of modern higher education and global economic integration. Nowadays, it has become an important development goal of colleges and universities, especially local colleges and universities. Although the cultivation of innovative talents is related to a series of problems such as school positioning, education goal setting, education investment and training mechanism [3]. Colleges and universities shoulder the mission and responsibility of cultivating college students' innovative consciousness and innovative ability. Higher education is an important measure for the country to improve its independent innovation capability and implement the strategy of strengthening the country through talent [4]. The cultivation and promotion of college students' multi-level practical ability is one of the main research directions of the development of higher education in our country. How to cultivate college students' multi-level practice and innovation ability is a crucial issue in the country's economic development.

Learning is the base for national personnel training and scientific research. Contemporary college students are the backbone of China's future scientific and technological development. Applied undergraduate colleges will cultivate high-level applied talents with broad knowledge, solid basic theory, strong application ability and good comprehensive quality as the training target [5]. Cultivating a large number of innovative talents is a major issue facing humanity. The core of the transformation is to highlight the application and locality, but this does not mean that the level of running schools and the quality of running schools are reduced [6]. College students are China's future and hopes during the transition period of higher education. In order to meet the needs of

social development, many colleges and universities are mostly transforming into application-oriented [7]. The content of information literacy standards is relatively broad, for students can be undergraduate or graduate students. The schools used can be either research universities or general colleges and universities [8]. How to cultivate college students' practical and innovative abilities is an important issue facing higher education, and also a long-term systematic project. Applied universities should not only aim at training innovative talents, but also reflect deeply in the process of training talents. Understanding the meaning of innovative talents training can provide sufficient conditions for innovative talents training.

## 2. Problems Existing in the Cultivation of College Students' Innovative Ability

Social transformation refers to the transformation of human society from one type of existence to another. Social transformation not only makes great changes in economic and social structure, but also profoundly affects people's ideas. Theory teaching and practice teaching are organic whole. Both of them are never isolated. Even in the traditional pure theory teaching, the cultivation of practical ability and innovative ability can also be implemented. Domestic information literacy education attaches importance to theory rather than practice, and the students trained are poor in practical ability, disconnected from theory and practice, and lack of practical operation ability [9]. On the basis of mastering the system knowledge system, having strong practical operation and knowledge application ability. To cultivate high-quality applied talents with certain innovative ability and ability to adapt to the rapid development of science and technology in the future should be our goal-oriented talent training. Form and improve quality in the process of teamwork and communication, thus effectively improving students' multi-level practical ability and innovative ability.

With the increasing enrollment of higher education institutions, the innovation ability and scientific research quality of college students have been criticized and questioned. The transformation and development of local colleges and universities must be supported by high-quality disciplines and universities. Strive to become a base for talent cultivation and technological innovation to support the upgrading of local industries. Knowledge and technological innovation, as the two main driving factors, need to cultivate financial management talents with good scientific and cultural literacy, solid professional knowledge, and strong self-learning ability and innovative ability to develop. Figure 1 shows the network structure system of talent information fusion management.



Fig.1. Talent Information Integration Management Network Structure System

The training goal of Applied Undergraduate Talents determines the training goal of information literacy of this kind of talents. The goal of information literacy training for applied talents is to make information literacy a comprehensive problem-solving tool for students. The cultivation of

innovation ability can not be solved by setting up an entrepreneurship course or several innovation experiments. The cultivation of innovative ability should run through the whole process of University education. In the process of running an applied undergraduate college, we should continue to carry forward the traditional spirit of running a school, but we can not be self-confident. In order to construct a new teaching system and cultivate students'scientific and technological innovation ability, Application-oriented Undergraduate Colleges and universities should first start with changing the training concept. Scientific and technological innovation has become a key driving force for economic development. The construction goals of innovative countries have also placed higher demands on industrial innovation. Scientific and reasonable teaching methods and means are important links for cultivating and improving students' multi-level practice and innovation ability. The applied undergraduate major is designed to meet the needs of the society, and to develop students' ability to use professional theories to solve practical problems. Practical teaching is not an aid to theoretical teaching, nor is it simply a proof of theory. It is the extension of theoretical teaching, and to some extent it is the sublimation of theoretical teaching. Applied undergraduate colleges and universities should aim at cultivating first-line applied and managerial talents.

### 3. The Training Model of Scientific and Technological Innovation Ability of College Students in Applied Undergraduate Colleges

Affected by the influence of traditional education, many college students believe that they only need to study the professional course knowledge carefully during the school period, and nothing else is involved. What is needed most in an innovative and entrepreneurial society is a large number of applied and innovative talents that are compatible with it. In the innovation of teaching concepts, breaking through and surpassing the original way of thinking is the most urgent and crucial. The technical skills of interpersonal talents and the expansion of interpersonal skills require information technology support. The cultivation of conceptual skills requires the full expression of information awareness, information innovation and information ethics. In the theoretical teaching, it reflects the guidance and cultivation of innovation consciousness and ability, and requires teachers to have profound professional theoretical knowledge and rich scientific research experience and innovative work experience [10]. It is difficult to keep up with the mentality of the instructor in the corresponding practice of scientific and technological innovation. Application-oriented undergraduate colleges and universities are bound to be the highlands of local talents and intelligence. It is imperative to quickly find the right position, adapt to the new normal situation and focus on the transformation of applied innovative talents.

While improving the quality of teaching, it can also meet the current demand for innovative financial management talents. The important goal of University establishment is to satisfy the talent demand of local economic and social development. The traditional structuralist school also points out that innovation structure affects enterprise behavior, so the degree of innovation power can be observed through innovation concentration. In the case of low saliency level, customer management ability has a relatively large impact on marketing performance. The other two sub-indicators, innovative learning ability and innovative promotion ability, also have a significant impact on marketing performance. Table 1 shows the estimation of structural parameters and significance test of performance indicators.

Table 1 Performance indicator structure parameter estimation and significance test

Path description	Path coefficient
Innovative Learning Ability Influencing Performance	3.31
Innovation and Promotion Ability Marketing Performance	3.45
Customer Management Ability Marketing Performance	3.76

If the training of modern applied talents lacks information literacy education, it will deviate from the development of the times. The specifications and objectives of personnel training requirements must not be achieved. With the integration of a large number of Frontier technical analysis in this

field and teachers' own scientific research experience in practical teaching, the teaching effect has changed greatly. Under the guidance of innovation and entrepreneurship, more innovative teaching modes should be introduced into the teaching activities of financial management specialty. The general education of College English in most schools is independent and not closely related to students' professional needs, which can not meet the needs of students' professional skills training. For the repetitive content of chemistry in the curriculum and middle school, we should ask questions, guide students to study independently, and incorporate the learning effect into their normal grades. Educators should establish an evaluation index system for college students' scientific and technological innovation ability, and seek new ways to improve college students' awareness and ability of science and technology innovation.

Strengthen students' ability to learn independently and improve their ability to solve practical problems. Information literacy education is an indispensable core part of applied talent training. Through the combing of the knowledge structure of the curriculum, a basic framework of problem-oriented knowledge is formed in the students' minds. Today, with the growing market economy, the basic knowledge and practical theory necessary for financial management careers are indispensable. Figure 2 shows the innovative thinking system of applied undergraduate colleges.

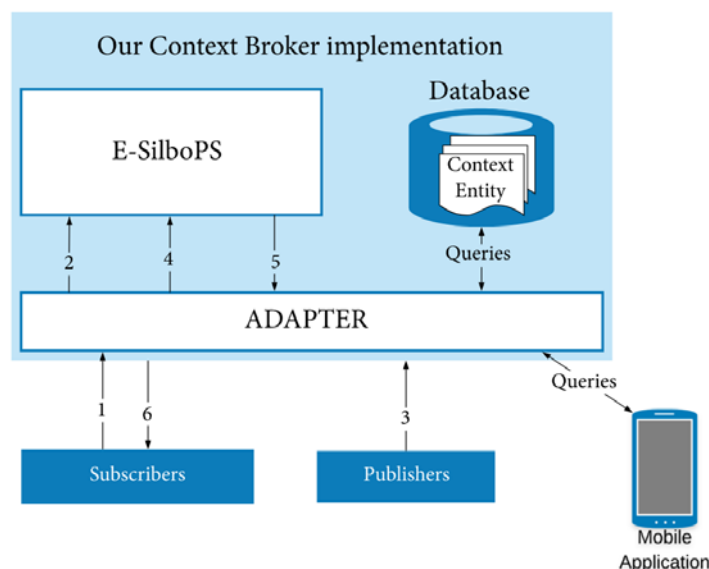


Fig.2. Innovative thinking architecture of applied undergraduate colleges

To cultivate college students' ability of scientific and technological innovation, it is necessary for them to take an active part in it. In order to improve students' enthusiasm for participating in scientific and technological innovation and competition, it is necessary to increase the propaganda of the significance of participating in scientific and technological innovation activities. At present, the development of science and technology in the world is changing with each passing day. Without innovation, there will be no room for enterprises to survive and no way for national economy to develop. Under the current education system, science and technology competitions are not part of the teaching plan, and the workload of teachers in the competition is difficult to be included in the workload assessment. The desire for innovative talents has become a necessity for the survival and development of the industry. To analyze market demand and combine the school's own internal environment and external environment, we are committed to cultivating the talents needed by the market.

#### 4. Conclusion

Today, with the rapid development of science and technology, the construction of an innovative country is the primary task of our country's current higher education transformation period, and it is also a key issue raised by our country's higher education transformation period for the training mode of higher education. The reform of teaching mode is the core, the innovation platform is the

important support, and the construction of campus culture is the catalyst. Only by multi-pronged and multi-dimensional construction can the cultivation of students' innovative ability be realized. The problem-based teaching process guides students to learn and master the knowledge points of the course. Perfect safeguard mechanism can ensure the scientific and sound operation of science and technology competitions. We should establish our own characteristic teaching according to the local conditions, and comprehensively and actively promote the cultivation of multi-level practice and innovation ability of college students. With the increase in the number of students enrolled in universities in China, the quality of students in applied undergraduate colleges has dropped significantly. Most college students in applied undergraduate colleges lack the knowledge and ability necessary for innovation. The ultimate goal is to cultivate innovative talents and build an "innovative" country. In order to cultivate students with a solid theoretical knowledge of inorganic chemistry, and at the same time must have the ability to innovate and compete in the workplace, teaching reform is imperative.

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