

The Role of Aesthetic Education in Enhancing Innovation and Entrepreneurship Skills among Chinese Applied Undergraduate Students

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Abstract

Aesthetic education plays a pivotal role in developing well-rounded individuals by fostering creativity, critical thinking, and entrepreneurial skills. This study explores the impact of integrating aesthetic education into the academic framework of Chinese applied undergraduate programs to enhance innovation and entrepreneurship abilities. The research employs quantitative methods to analyze how aesthetic education initiatives—including specialized courses, innovation competitions, and social practice activities—contribute to the development of essential skills among students. By combining empirical analysis with theoretical exploration, the study reveals that aesthetic education extends beyond artistic appreciation, nurturing a mindset conducive to innovation and entrepreneurial success. Key findings indicate that aesthetic education significantly improves students' problem-solving abilities, critical thinking, and adaptability, which are essential for navigating the dynamic demands of the modern workforce. Additionally, aesthetic education enhances students' entrepreneurial acumen by encouraging creativity, collaboration, and a scientific approach to opportunity recognition and risk management. These findings underscore the necessity of integrating aesthetic education into applied undergraduate curricula to bridge the gap between theoretical knowledge and practical application. This research contributes to the ongoing discourse on education reform in China by providing actionable insights for curriculum design, policy formulation, and the cultivation of applied talents. It emphasizes the importance of a holistic education system that aligns with national development goals and global workforce demands. The study offers a robust framework for educators, policymakers, and institutions to enhance innovation and entrepreneurship education through aesthetic practices.

Keywords: Aesthetic Education, Innovation, Entrepreneurship, Applied Undergraduates, Curriculum Reform

Introduction

The sharp increase in the number of undergraduate graduates leads to high competition for employment. From 2000 to 2021, the gross enrollment rate of higher education in China is to

increase from 12.5% to 57.8%, and higher education has transitioned from the elitist stage and the mass stage to the popularization stage (Chen, 2023). The substantial increase in the number of undergraduate graduates, the constant changes in the global economic situation, coupled with the sudden incident of the new Crown Pneumonia epidemic in the early 2020's, caused a lot of difficulties in the employment of undergraduate students.

Under the background of the rapid increase of economic development level in the new era, the traditional education and teaching mode is difficult to keep up with the development trend of the modern market, and unable to meet the needs of contemporary college students' personality growth (Feng, 2022). Behind the difficulty of employment of college students lies another embarrassing phenomenon: most enterprises have a large number of vacancies, and they have started the mode of seeking talents with high salaries, but it is difficult to recruit satisfactory college graduates, and the phenomenon of employment gap in the modern market is becoming more and more significant (Li, 2021).

Contemporary college students are most concerned about salary in choosing employment, influenced by the diversification and pragmatization of social value orientation, college students' expectations of salary are relatively rational, and their salary expectations are generally close to the actual level (Wang & Zhou, 2022). Secondly, unclear self-knowledge causes blindness in employment choice. In the survey and interviews with students, it is found that many students do not have an in-depth understanding of themselves, are not clear about their own strengths, do not understand their own personality characteristics and knowledge structure is suitable for what kind of work, in the process of looking for a job is not targeted, blind optimism, low-eye or self-hatred, do not dare to take the initiative to attack, and ultimately, in the process of career choices, there is a blunder or hit the wall, and can't find a good job that suits their needs (Qin & Gong, 2021).

The existing mode of employment education on campus is still insufficient, so that the following problems exist in the employment ability of college students: firstly, the lack of sufficient basic employment skills, such as poor language skills, interpersonal communication skills, lack of sense of responsibility, social adaptability, etc., which makes it difficult for students to carry out employment work quickly and efficiently; secondly, under the influence of examination education, college students are not sufficiently solid in their professional foundations and have not yet established a mature innovative thinking and employment awareness. Secondly, under the influence of exam-oriented education, college students' professional foundation is not solid enough, and they have not yet established mature innovative thinking and employment consciousness, which results in low level of professional skills and serious shortage of innovative practical ability (Li, 2021).

Analysis of the current situation of college students' entrepreneurship in applied colleges and universities. (1) College students' practical ability is not strong. Social practice ability to be improved professional skills level is low, lack of vocational skills and other issues. (2) The core ability of college students in applied colleges and universities is insufficient, which is mainly reflected in the talent cultivation of colleges and universities and the self-growth of students. (3) Inadequate career preparation of college students. College students do not have sufficient knowledge reserves and practical experience in job search psychology, workplace work skills, professional ethics and other aspects (Chen, 2023).

In recent years, under the influence of network diversified culture, the ideological and moral concepts, political identity and value identity of college students have undergone great changes. However, the reality of beauty and ugliness, good and evil and many other problems are increasingly prominent, bringing new challenges to college education (Li, 2023). "The machine does not leave the hand" has become a real portrayal of the life of contemporary college students. However, the complexity, indiscernibility and diversity of network information make it difficult for college students to recognize truth and falsehood, which affects their thinking and ability to appreciate and create beauty (Dong, 2021). As one of the main audience groups of new media, college students are able to skillfully use media technology to access all kinds of information and browse current hot topics in a timely manner, but they are also relatively vulnerable to the erosion of various non-scientific, irrational, entertaining and vulgar social trends and network culture waves, and the cultivation of their aesthetic values is faced with the challenge (Li, 2023).

China's higher education system has undergone a major shift from a comprehensive curriculum covering a wide range of disciplines, including arts, sciences, humanities, and religion, to a more differentiated approach that includes highly specialized courses of study (Wang, 2018). At present, "innovation and entrepreneurship" education in local colleges and universities urgently needs to solve the problems of weak entrepreneurial awareness among college students, weak teamwork willingness and insufficient action ability in "innovation and entrepreneurship" practice, and the need to improve the perceptual quality and cognitive ability of college students (Chen, 2022). In the practical research, there are still many problems in the school aesthetic education program, such as the curriculum is not complete, the curriculum lacks top-level design, random and fragmented, the students' aesthetic education elective is more random, the concept of aesthetic education is relatively narrow, they are not familiar with the content of aesthetic education, and they are not interested in accepting the traditional arts and so on (Deng, 2019). From the perspective of overall development, colleges and universities need to develop aesthetic education. Today's global challenges require a different set of skills and competencies. Solving these multifaceted problems requires individuals to possess multidisciplinary thinking, ethical decision-making skills, and creativity in designing innovative solutions.

They must be adept at functioning in multicultural, multilingual, and collaborative environments (Zuo, & Zhu, 2021). Aesthetic education can effectively enhance the professional identity of applied talents. Aesthetic education is a guarantee for the sustainable development of professional growth, which can cultivate positive individual attitudes, develop good learning ability and enterprising spirit, and have better communication skills. Applied talents in the new era require the cultivation of "moral, intellectual, physical, aesthetic and labor" as the goal, these goal elements are intrinsically linked to each other, and aesthetic education can effectively promote the interoperability and coordination between their non-intellectual factors and intellectual factors in this process (Dong, 2021). The study has following objectives:

- 1) To determine the status of implementation of aesthetic education in the curriculum of applied undergraduate programs in Chinese universities.
- 2) To identify the impact of aesthetic education, including integration of specialized courses, competitions in specialized disciplines, students' innovation competitions, and social practice activities, on the entrepreneurship of applied undergraduate students in China.

- 3) To examine the influence of aesthetic education, including integration of specialized courses, competitions in specialized disciplines, students' innovation competitions, and social practice activities, on the innovation ability of Chinese applied undergraduate students.

Literature Review

It is possible to trace the origins of aesthetic education in Chinese colleges and universities all the way back to the National Spiritual Enlightenment Movement, which occurred during the late Qing Dynasty and the early Republican era. This movement is also referred to as the modernist project of National Spiritual Enlightenment that took place during this time period. The concept of "education to save the country" was proposed by Cai Yuanpei, a well-known educator in China who had previously served as the president of Peking University until his retirement. Cai Yuanpei, a well-known Chinese educator and a former president of Peking University, is credited with introducing the concept of "education to save the country," vigorously advocating for aesthetic education, and incorporating aesthetic education into the modern education policy and system. As a result, aesthetic education has been elevated to a position of prominence within the contemporary education system (Zhao, 2022). Aesthetic education in colleges and universities is an education that makes use of all different kinds of beauty, improves aesthetic ability, cultivates aesthetic concepts, and perfects personality (Deng, 2019). Although there are a variety of perspectives on the concept of aesthetic education in colleges and universities, they all agree that aesthetic education is an education that takes that into consideration.

School aesthetic education is defined as education that is purposeful, planned, and organized to cultivate students' aesthetic appreciation, expression, and creativity through all kinds of beautiful things, and at the same time to promote students' overall and harmonious development of moral, intellectual, physical, aesthetic, and labor qualities (Zhao, 1996). This definition was provided by Zhao Lingyi. In this context, the capacity to appreciate, express, and create aesthetics can be summed up as aesthetic cognitive power, aesthetic experiential power (sense of beauty), aesthetic expressive power, and aesthetic creativity. These capabilities can be further subdivided into the fundamental qualities of perception, comprehension, experience, evaluation, expression, and creativity (Zhao, 2017). Aesthetic education in colleges and universities refers to the education that makes use of natural beauty, social beauty, artistic beauty, and other forms of beauty in order to emotionally purify and temperamentally cultivate college and university students. Additionally, the goal of aesthetic education is to improve students' ability to feel, appreciate, and create beauty, as well as to cultivate their correct concept of aesthetics, aesthetic ideals, and aesthetic interests. According to Zhong Shilun and Li Tendao (2006), aesthetic education in colleges and universities is the necessity for developing a perfect personality.

It is necessary to make rationality penetrate sensual individual existence through the image of beauty and to become a conscious aesthetic consciousness in order to guide one's own actions in order to realize the basic purpose of aesthetic education in colleges and universities, which is to cultivate people with all-around development. In order to realize this purpose, it is necessary to make rationality penetrate the image of beauty. It is an essential, irreplaceable, and significant component that plays a significant role in fostering the holistic and harmonious development of students who are enrolled in university education (Sun,

2021). University aesthetic education is to further cultivate and enhance the aesthetic quality of students on the basis of their existing high aesthetic quality, to further systematize and rationalize it, to cultivate college students to have aesthetic quality that is compatible with the quality requirements of high-level specialists, including aesthetic concepts, aesthetic interests, aesthetic ability, focusing on the aesthetic quality of a perfect personality, and in particular to cultivate aesthetic quality of students' life and work, so that students can look at life with 'aesthetic' eyes and be able to engage in post work 'aesthetically' (Li, 2012).

Aesthetic education in colleges and universities can be summarized as follows: aesthetic education in colleges and universities embodies the comprehensive nature of education, which integrates aesthetic education, quality education, personality education and so on, and combines various aesthetic forms under the guidance of the theory of aesthetics to cultivate students' aesthetic ability, comprehension, innovation and entrepreneurship through the aesthetic practice activities, to promote the improvement of the comprehensive quality of college students and ultimately realize the good personality of college students (Burton, 2018). At the end of the day, the objective is to realize the development of positive characters in college students.

A proponent of the idea that "universities should faithfully serve society" was Mr. Van Hoes, who served as President of the University of Wisconsin. Over the course of its history, the university has transitioned from the "ivory tower" of academia to the "wisdom factory" of society. Since that time, the idea of educating people to use their talents in practical situations has been explicitly proposed. Since the beginning of the 21st century, China has made it a priority to place an emphasis on the education of individuals with applied abilities and has implemented policies that are intended to direct the growth of applied institutions. The year 2024, Zhang Qiong and Xu Zhonghua. The "Overall Program for Coordinating and Promoting the Construction of World-Class Universities and First-Class Disciplines" was promulgated by the State Council of China in October of 2015. This program outlines the overall objective and fundamental line for the construction of the "double first-class" and emphasizes that educational institutions of higher learning should place a strong emphasis on the core status of talent cultivation in the construction tasks.

Additionally, the program emphasizes the importance of cultivating talents with a sense of national mission and social responsibility, as well as cultivating talents with a sense of social responsibility. It emphasizes that educational institutions of higher learning should place a primary emphasis on the core position of talent cultivation in the construction tasks, and they should work toward cultivating all types of innovative, applied, and composite talents with a sense of national mission and social responsibility, as well as a positive sense of innovative spirit and practical ability. Opinions on Accelerating the Construction of High-level Undergraduate Education and Comprehensively Improving Talent Cultivation Capabilities were issued by the Ministry of Education in September of 2018. These opinions provide a further explanation of the significance and overall goal of building high-level undergraduate education in domestic ordinary higher education undergraduate schools. Additionally, these opinions will deepen the reforms in key areas such as the curriculum system for innovation and entrepreneurship, teaching methods, practical training, and team building. Positive responses have been received from local governments, which have received backing from national programs.

The Program for Promoting the Construction of First-Class Universities and First-Class Academic Disciplines was put into place by the People's Government of Shandong Province in the year 2017. By accelerating the reform and innovation of engineering education, promoting the development of the classification of all kinds of academic disciplines and specialties, and cultivating innovative and applied talents with disciplinary characteristics, policies at all levels, from the state to the local, indicate that the cultivation of innovative and applied talents that are suitable for the needs of the times must be accelerated. Research-oriented talents, skill-oriented talents, and application-oriented talents are the three categories that are used to categorize the talents. These categories are determined by the type of local colleges and universities that the talents belong to. According to Yang Jumei (2023), applied talents place an emphasis on the capability of applying scientific theories in a comprehensive manner and the capability of solving problems from a practical standpoint in practice. In accordance with Guan Zhonghe's (2010) definition, applied talents are those who are able to put their acquired scientific knowledge and professional abilities to use, apply them to their professional social activities, and provide the greatest possible benefits for society.

Theoretical Framework

The theories of Constructivist Learning Theory, Human Capital Theory, Self-Efficacy Theory, and Self-determination Theory, when taken together, offer a comprehensive framework for understanding the mechanisms through which aesthetic education influences innovation and entrepreneurship among Chinese undergraduates who are pursuing applied degrees. The Constructivist Learning Theory places an emphasis on the active construction of information and meaning by learners in partnership with their socio-cultural environment. This theory also highlights the significance of developing a learning environment that is suitable to the active involvement and exploration of students. According to the Human Capital Theory, aesthetic education is viewed as an investment in the human capital of students (Lu,2023). This is because it helps students develop their creative, critical thinking, and problem-solving skills, all of which are crucial for startup businesses and innovative ideas.

According to the Self-Efficacy Theory, aesthetic education has the potential to increase students' self-belief in their creative talents, so cultivating a mindset that is receptive to taking on difficulties that are associated with entrepreneurship. According to the Self-Determination Theory, which emphasizes the significance of autonomy and competence in motivating intrinsic motivation, aesthetic education has the potential to equip students to pursue new initiatives in an independent and persistent manner. Collectively, these ideas highlight the transformative potential of aesthetic education in terms of cultivating the skills, perspective, and motivation that are necessary for success in innovation and entrepreneurship ventures among undergraduate students in China who are pursuing applied degrees (Qu,2021).

The specific conceptual framework is as follows:

IV

Aesthetic Education

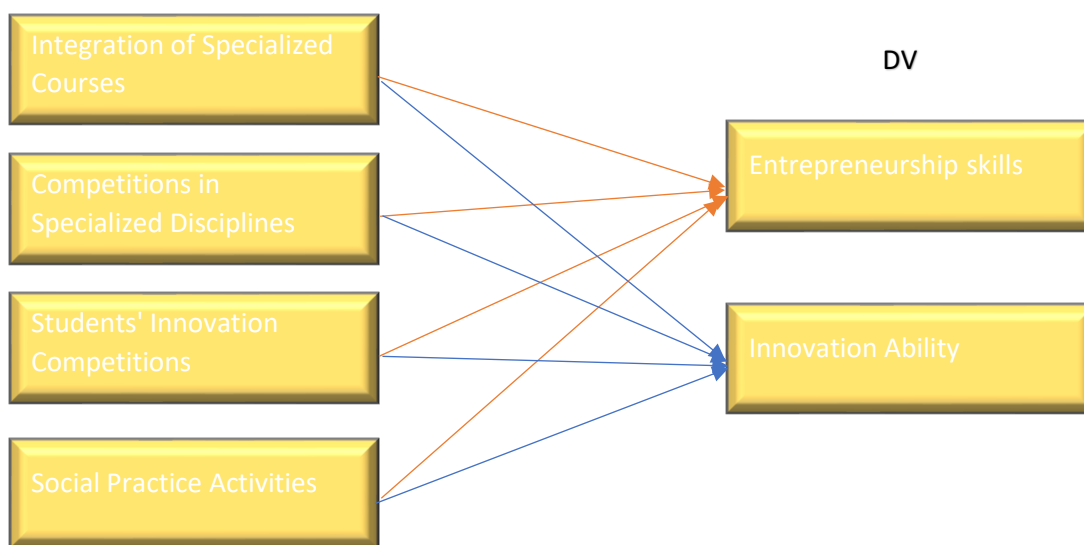


Figure 1: Conceptual framework

Methodology

This study employs a quantitative research approach using a survey research design to investigate the influence of aesthetic education on innovation and entrepreneurship among Chinese applied undergraduates. A structured questionnaire serves as the primary data collection instrument, facilitating the systematic measurement of students' perceptions, attitudes, and experiences related to aesthetic education. The survey method is chosen for its ability to provide numerical data that can be analyzed statistically, allowing for the identification of patterns, relationships, and potential causal links. The questionnaire is designed based on established literature and includes multiple constructs such as integration of specialized courses, participation in competitions, engagement in innovation activities, and social practice experiences. A pilot study was conducted to assess the reliability and validity of the instrument, ensuring its effectiveness before full-scale deployment.

The study setting is Shandong Youth Politics College, an applied undergraduate institution in Jinan, China, known for its structured aesthetic education programs. The target population consists of junior students majoring in Radio and Television Studies, selected for their exposure to aesthetic education and its potential impact on their career trajectories. The sampling method follows simple random sampling, ensuring every eligible student has an equal chance of being selected, enhancing the study's representativeness. Using Krejcie and Morgan's (1970) sampling table, the study determines an appropriate sample size of 385 students from the total population, ensuring statistical reliability with a 95% confidence level. The data collection procedure involves obtaining ethical approval, securing informed consent from participants, and distributing the survey through digital and physical channels to maximize response rates.

The data analysis employs descriptive statistics to summarize the responses and regression analysis to examine relationships between aesthetic education and the dependent variables—innovation ability and entrepreneurship. Normality tests are conducted to ensure data suitability for parametric analysis, and Cronbach's alpha coefficient confirms the internal consistency of the constructs, with all values exceeding 0.90, indicating excellent reliability. To ensure validity, content and construct validation methods are applied, including expert reviews and factor analysis. These rigorous analytical techniques ensure the study produces empirical evidence on how aesthetic education fosters innovative and entrepreneurial mindsets among Chinese applied undergraduates.

Results

Table 1

Results of hypothesized regression of the factors influence innovation ability

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	Integration of Specialized Courses	.178	.053	.178	3.357	.001
2	Competitions in Specialized Disciplines	-.003	.070	-.003	-.038	.969
3	Students' Innovation Competitions	.316	.079	.304	4.017	.000
4	Social Practice Activities	.367	.065	.365	5.622	.000

a. Dependent Variable: Innovation Ability

Using innovation capacity as the dependent variable, the table presents the findings of a regression study that examined the effect of different factors. The innovation capacity change for each independent variable is given by the unstandardized coefficients (B), and their proportional contributions are shown by the standardized coefficients (Beta). Out of all the predictors, "Social Practice Activities" had the most significant positive impact, with a Beta value of .365 and a p-value less than .001. Since these activities cultivate problem-solving abilities and creativity, our discovery highlights the critical role that practical involvement and real-world exposure have in enhancing students' capacity for invention.

The innovative potential of students is positively impacted by "Students' Innovation Competitions" (Beta value of .304, $p < .001$). This demonstrates how taking part in innovation-focused contests can help students develop their creative abilities and problem-solving skills. Furthermore, there is a strong and positive correlation between "Integration of Specialized Courses" and innovation ability (Beta = .178, $p = .001$). This indicates that students' innovative capacities are enhanced by structured academic programs that integrate specialized knowledge, as these programs provide students with foundational skills and promote innovative thinking.

Participation in such competitions may not directly effect the development of inventive capacities within the context of this model, as "Competitions in Specialized Disciplines" did not show a significant impact on innovation ability (Beta = -.003, $p = .969$). There is a baseline amount of innovation ability even without the predictors, as suggested by the significant

constant term ($B = 2.637$, $p = .001$). The results show that students' invention talents are greatly improved through participation in innovation competitions and social practice, and that specialized education should be incorporated into these activities.

Conclusion

This study's results highlight the importance of aesthetic education in inspiring creativity and entrepreneurial spirit among applied students in China. Skills necessary for entrepreneurial success can be enhanced through aesthetic education, which promotes creativity and encourages thinking outside of the box. Incorporating aesthetic elements into the curriculum also helps students see things in a new light, which leads to more innovative solutions. In the end, this study supports the idea that aesthetic education should be more widely used as a technique to equip undergraduates with the skills they need to confidently and creatively face the difficulties of today's corporate world.

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