

# *Analysis of the Integration Mode of Industry-University-Research Education in Art Universities*

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**Abstract:** In today's increasingly diversified educational needs and the changes of the industrial market, art colleges and universities need to be closely combined with the social needs, and realize the win-win development of schools and society through the effective integration mode of industry, university-research education. The research work of this paper mainly includes the following parts: (1) to explore the composition and internal mechanism of the integration mode of industry, university-research education in art universities.(2) Explore the industrial application of the integration mode of industry, university-research education in art universities. For art universities, how to transform professional skills into industrial application is very important.(3) Explore the scientific research innovation in the integration mode of industry, university-research education in art universities.(4) Explore the talent training in the integration mode of industry-university-research education in art universities. This study adopts the literature data method and case analysis method, combined with the field investigation of many art universities, conducts in-depth research and analysis on the construction and practice of the integration mode of industry-university-research education, and analyzes its industrial application, scientific research innovation and talent training. The research shows that the integration mode of industry-university-research education in art universities can effectively improve students' ability in practice, promote industrial application and scientific research innovation, and be more close to the demand of The Times for artistic talents. In practice, colleges and universities should strengthen the personalization and socialization of talent training, build more cross-class courses and practice bases of art, and establish a complete set of innovation and entrepreneurship service system, so as to make the education practice pay more attention to effectiveness and pragmatism.

## 1. Introduction

In recent years, with the development of social economy and the expansion of the cultural art market, art industry increasing demand for high-quality talents, the arts university shoulder the mission of cultivating excellent artistic talents, but also to adapt to the development of The Times, to the integration of education, provide better experiential learning environment for talent training.

The purpose of this study is to analyze the integration mode of industry-university-research education in art universities, and further explore the role of this mode in industrial application, scientific research innovation and talent training, so as to provide reference for universities to face the challenges of cultural and art market.

## 2. Research background

At present, the deepening of the supply-side reform of higher education requires colleges and universities to improve the talent supply capacity and quality requirements. Therefore, the industry-university-research collaborative talent training mode has become one of the important ways to cultivate compound high-quality talents in line with the market demand. However, there are a series of problems in talent training in art colleges and universities, such as decoupling from social demand and insufficient construction of practical training platform.[1] For example, in professional fields such as musical instrument manufacturing and maintenance, these problems are even more prominent. Some researchers have investigated and made statistics on the real needs of enterprises from five aspects, and showed the imbalance between the demand for enterprises and the supply of universities in the form of pie chart (Figure 1-5).[2]

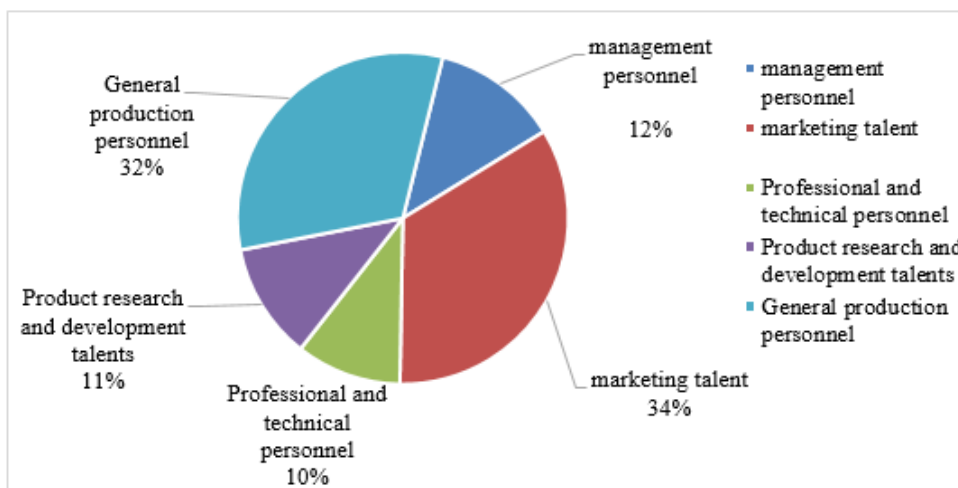


Figure 1: Professional statistics of enterprises most need talents

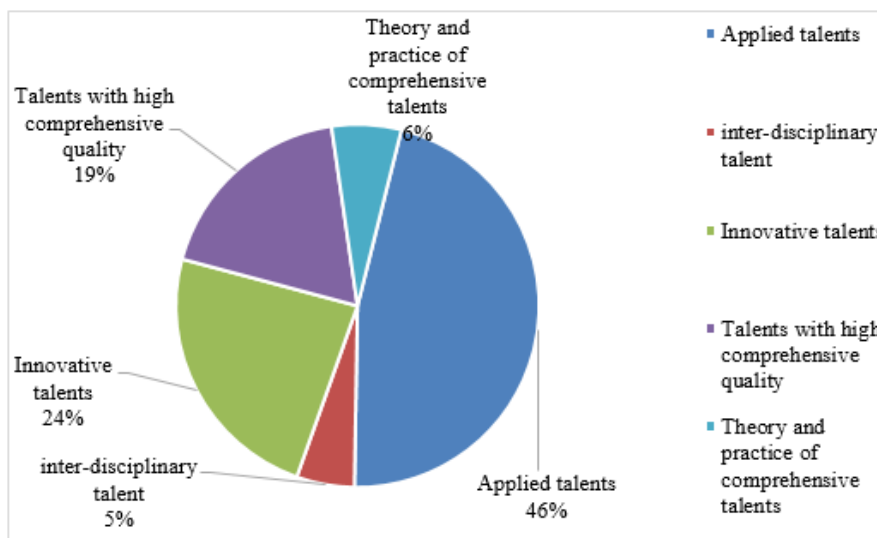


Figure 2: Statistical chart of enterprise talent demand type

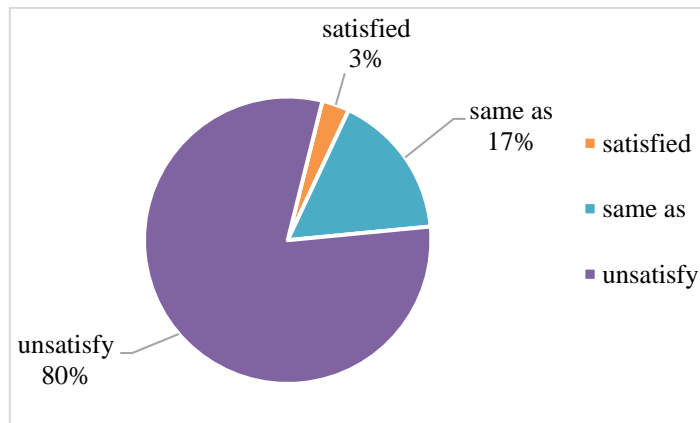


Figure 3: Statistical chart of enterprises' satisfaction with theoretical teaching in colleges

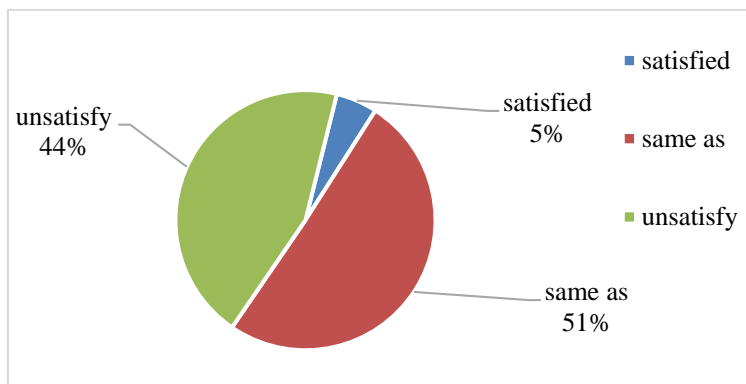


Figure 4 Statistical chart of satisfaction with students' professional skills practice

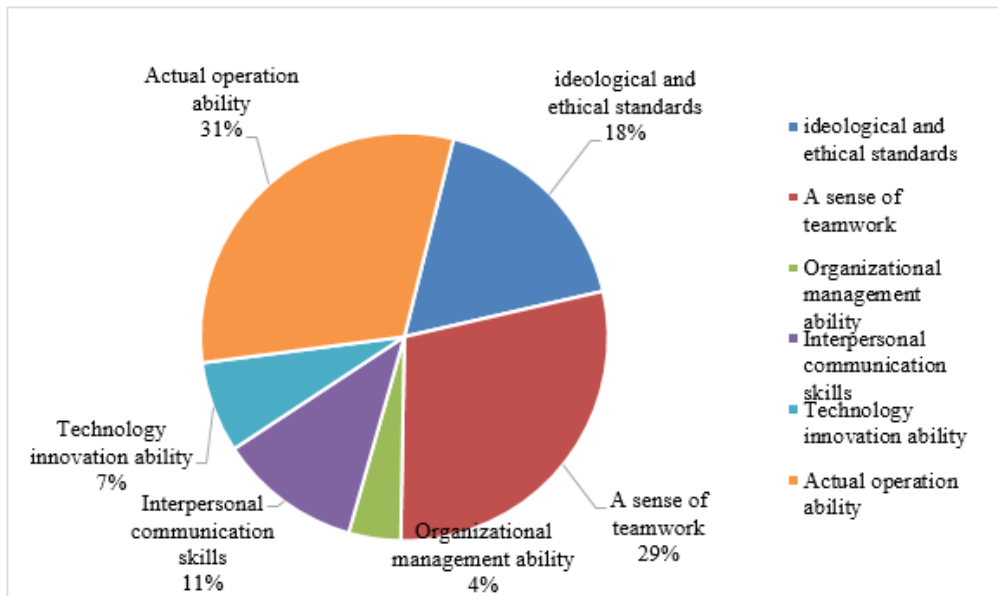


Figure 5: Statistical chart of the comprehensive quality and attitude of enterprises

Therefore, this paper takes this major as an example, and from the perspective of industry-university-research collaboration, explores how to optimize the talent training mode to meet the market demand, so as to provide reference for optimizing the integrated talent training mode of art universities and cultivating compound talents in line with the market demand. For example, in the

major of musical instrument manufacturing and maintenance in art universities, the characteristics and market orientation of this field determine that the main body of the talent training mode of industry-university-research institutes is universities, enterprises and cultural venues. Although the school-enterprise cooperation training mode has been initially established, there are still problems in the practical training process, such as the market and the imperfect practical training platform. Therefore, this paper will explore how to optimize the practical training platform and improve the quality of practical training, so as to realize the integration of talent training and market demand. The research method will adopt the combination of literature research, field research and case analysis, and explore the optimization scheme of the talent training mode of professional industry-university-research cooperation talents in art universities from two aspects of theory and practice, so as to provide specific plans and paths for cultivating compound talents in line with the market demand. This study aims to put forward the optimization scheme of industry-university-research collaborative talent training mode through the analysis of the professional talent training mode of art universities, so as to provide reference for the improvement of the integrated talent training mode of art universities; meanwhile, it also helps to promote the deep cooperation between universities and enterprises and cultural venues, and improve the quality and practical effect of talent training.

### **3. Integration Mode of Industry-University-Research Education in Art Universities**

#### **3.1 The Concept of Talent Training**

Talent training means to make students have a variety of comprehensive qualities, knowledge and skills needed through a variety of educational methods and methods, so as to achieve the goal of meeting social needs and serving social development. In recent years, the concept and method of talent training are constantly being updated and changing, and various fields are constantly calling for the cultivation of innovative talents and talents with practical experience. For art colleges and universities, it is more necessary to cultivate compound talents who understand professional skills and have artistic taste and aesthetic taste. [3]

#### **3.2 Concept and Characteristics of the Integration Mode of Industry-University-Research Education**

The integration mode of industry-university-research education refers to the close cooperation between universities, enterprises, research institutions and other different fields to jointly realize the cross-border integration of intelligence, technology and resources and complementary advantages. The integration mode of industry-university-research education is of great significance in talent training. This model will rise to a higher level, not only requires students to have solid subject knowledge and practical experience, also need to combine knowledge and practice, combining theory with practice, so that the students constantly explore in practice, experience, and form the specific direction and goals for future career development. Kogut (1988) In its research results, the mode of industry-university-research cooperation can be divided into general RESEARCH and development funding, university industrial partnership program, research and development center, cooperative research and development, industry-university-research development alliance, business incubator and science and technology park.[4] The characteristics of the integration model of industry-university-research education lie in that it emphasizes practice as the center, upholds the balanced development attitude of theoretical knowledge and practical experience, fully excavates and develops the innovative potential of students, and encourages students to explore the organic connection between learning and practice for the market and actual needs. In addition, this model

also has close industry absorption and market orientation, which fully meets the needs of construction for high-level talents in different fields. In practice, this model also needs close cooperation between universities, enterprises and research institutions, and needs to establish a set of perfect curriculum system and practical links to give full play to their respective advantages, so as to form a benign interactive ecosystem.[5] (As shown in Figure 6) In addition, in the implementation process of this mode, it is also necessary to continuously improve and optimize the management mechanism, evaluation system and other aspects, so as to ensure that the integration mode of industry-university-research and education can run steadily for a long time and continue. In short, in the current era of knowledge economy, the integration mode of industry-university-research education has played an increasingly critical role in higher education. How to deepen and broaden this mode is one of the important problems facing the talent training of universities in the future.[6]

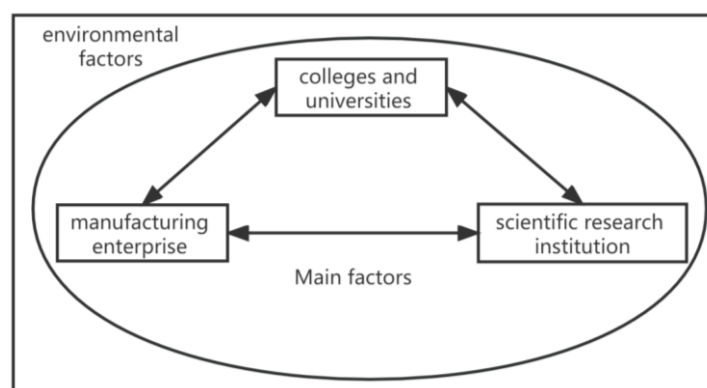


Figure 6: Basic composition of industry-university-research cooperation

## 4. Current Situation and Problems of the Integration Mode of Industry-University-Research Education in Art Universities

### 4.1 Status Quo Overview

At present, art universities have made some progress in the integration mode of industry-university-research education. The school gradually realized the importance of the integration of industry-university-research education and education, and explored it in practice. On this basis, some unique industry-university-research education integration modes have been formed. For example, the cooperation between schools and enterprises in running schools, internship, joint training between training bases and schools, industry-university-research and tripartite cooperation have played a positive role in promoting the employment of students. However, there are still some problems in the integration mode of industry-university-research education in art universities. First of all, the cooperation foundation between schools and enterprises is weak, and it is difficult to achieve deep cooperation. Secondly, the particularity of art majors leads to the incomplete industrial chain and the lack of deep integration between enterprises and schools. Finally, the cultivation of students' practical ability, workplace literacy and other aspects needs to be strengthened.[7]

### 4.2 Problem Analysis

#### 4.2.1 Lack of Effective Cooperation Mechanism

Although some art colleges and universities cooperate with enterprises in running schools or open practice bases, they lack a scientific and effective cooperation mechanism. The lack of

cooperation agreement and two-way feedback mechanism affects the depth and effect of the cooperation between schools and enterprises.

#### **4.2.2 Professional Particularity Affects the Deep Integration of Industry, University and Research**

The particularity of art majors leads to the lack of a complete industrial chain and the lack of deep integration with enterprises. For example, schools of music, dance and other majors are difficult to establish deeper cooperation with enterprises, such as performing arts companies and production companies. Therefore, it is difficult for schools to form an interdependent and mutually beneficial relationship with enterprises, which also limits the career development of art students.

#### **4.2.3 The Unclear Training Objectives Will Lead to the Insignificant Effect of the Integration of Industry-University-Research Education**

In terms of practical education, some art colleges and universities also need to pay attention to students' practical ability, workplace literacy and other issues. Therefore, when exploring the integration mode of industry-university-research education, it is necessary to clarify the educational objectives and strengthen targeted training.

### **5. Optimization Strategy of the Integration Mode of Industry-University-Research Education in Art Universities**

In the current educational environment, the optimization of the integration mode of industry-university-research education in art universities has become an inevitable choice to improve the quality of education. So, how to develop a specific optimization strategy? First of all, the cooperation with enterprises should be strengthened. Art universities should strengthen the cooperation with relevant enterprises, clarify the needs of both sides, jointly study solutions, and realize the organic combination of industry, university, research and education. This can not only improve the application, but also provide more practical opportunities for students to enhance their comprehensive quality.[8] Secondly, we should explore diversified ways of cooperation. In addition to in-depth cooperation with enterprises, art universities can also seek research cooperation with other universities and scientific research institutions, launch more innovative ideas and projects, and make the industry-university-research education model more dynamic and diversified.[9] Third, teachers' professional level and comprehensive quality should be comprehensively improved. As the link between industry and education, teachers not only need to have excellent discipline ability, but also need to have certain industrial experience and a high degree of innovation ability. Art colleges and universities should increase the training of teachers and improve their comprehensive quality, so as to better promote the in-depth development of the industry-university-research education mode. Finally, we should pay attention to the implementation and evaluation of the reform measures. Art colleges and universities should regularly evaluate the effect of the reform measures formulated, constantly summarize experience, strengthen internal management, and at the same time, introduce external evaluation forces, so as to promote the consistency and stability of the industry-university-research education model. Through the above optimization strategy, the integration mode of industry-university-research education in art universities will be more mature and perfect, better serve the development of the industry and society, and lay a solid foundation for the talent training of art universities.[10,11]

## 6. Conclusion

Although the integration model of industry-university-research education has made some achievements in talent training, there are still many problems. First of all, the current model is still stuck in the low-level skill training and technical services, and lacks the cultivation and improvement of students' overall quality. Secondly, due to the complex interest relationship between industry, university and research, and the difficulty of practice, there is a disconnection between talent training and production practice, which cannot truly achieve the goal of complementary advantages and complement each other. In addition, the development of this model is also restricted by policies, funds, environment and other aspects, which requires the joint efforts of all aspects. In the future, we should explore more integration modes suitable for all kinds of art universities, and pay attention to theoretical innovation to provide better talent support for industrial development. At the same time, the government needs to increase the support and investment in the industry-university-research education mode of art universities, so as to guarantee its sustainable development.[12]

It is the development trend of art universities to realize the integration of industry, university, research and education in recent years, and its advantages and disadvantages are increasingly apparent. First of all, under the mode of integration of industry, university, research and education, art universities can better meet the market demand, cultivate talents with more practical ability and innovative spirit, and provide high-level talents with creativity, innovative ability and practical ability for the society.[13] Secondly, the integration mode of industry-university-research education can improve the teaching quality of colleges and universities, and has obvious advantages in the training of applied talents. At the same time, it can also break down the barriers between disciplines, promote the exchange of knowledge in different fields, and form a virtuous circle.[14] However, there are also some deficiencies in the integration mode of industry-university-research education in art universities. First of all, the cooperation between universities and enterprises is not close enough, the practice base and teaching in the integration mode of industry-university-research are relatively independent, and the interaction between teachers and students and enterprises is not close enough. Secondly, there are still differences between schools and enterprises in recruitment, salary and treatment, and the requirements and talent standards for evaluation of enterprises are very different from the teaching and evaluation standards of colleges and universities. In view of these problems, art colleges and universities should further strengthen the cooperation with enterprises, increase practical links and enterprise projects, and provide students with more opportunities for practical training. In addition, schools should also strengthen the management of practice links, improve the awareness and ability of cooperation between teachers and enterprises, enhance the understanding of teachers and students to enterprises, and provide a better career planning and development platform for students.[15] To sum up, the advantages and disadvantages of the integration mode of industry-university-research education in art universities are constantly emerging in practice, and the strengthening of cooperation, management and teaching reform of schools will help promote the further development of this mode, and provide a more stable guarantee for the cultivation of high-end talents.[16]

## References

- [1] R. W. Farebrother. *The Identification and Estimation of a Simple Demand and Supply Model*. *Econometric Theory*. 2010, (2): 156.
- [2] Xu Xiao. *Research on talent training mode based on industry-university-research cooperation*. Shenyang Jianzhu University, 2015.
- [3] FENG Xinhong. *Key Project of Philosophy and Social Science Research of the Ministry of Education "Research on Academic Cultivation of Teachers" Benevolence and Benevolence of Academic Educators—A Review of Professor Li*

- Jifeng's "Research on Academic Cultivation of Teachers". *Contemporary Teacher Education*, 2022, 15(04):2+95. DOI:10.16222/j.cnki.cte.2022.04.017
- [4] LIANG Chenghong. *The historical field and thematic rheology of modern Chinese educational novels*. Zhejiang University, 2022. DOI:10.27461/d.cnki.gzjdx.2022.002496.
- [5] Chen Qiao. *Case study on the training of industry-university-research cooperation in local universities*. Southwest University, 2016.
- [6] Wang Jinru. *Research on listing methods and effects of vocational education and training enterprises*. Shandong Normal University, 2022. DOI:10.27280/d.cnki.gsdsu.2022.001722
- [7] Wan Changlin, Wang Chenmeng. *Training of art and design talents in the industry-university-research Community: Connotation, dilemma and Path innovation*. *Hunan Packaging*, 2021, 36(06): 163-166. DOI:10.19686/j.cnki.issn1671-4997. 2021.06.042
- [8] Cao Xinwei, Dong Zhongmei. *Research on industry-university-Research mode of art majors in universities based on supply and demand model*. *External Education in China*, 2012, (24): 158-159.
- [9] QIU Yannan. *East China Normal University*, 2022. DOI:10.27149/d.cnki.ghdsu.2022.001008.
- [10] Meissner, D., et al., *A multilayered perspective on entrepreneurial universities: looking into the dynamics of joint university-industry labs*. *Technological Forecasting and Social Change*, 2022. 178: p.121573.
- [11] LOU Shuhua, ZHANG Limin. *Positioning, interpretation, boundary determination and practical choice of curriculum moral education in university education*. *Social Science Front*, 2022(02):269-274.)
- [12] Zhang, Y., C. Yuan and S. Zhang, *Influences of university-industry alliance portfolio depth and breadth on growth of new technology-based firms: Evidence from China*. *Industrial Marketing Management*, 2022. 102: p.190-204.
- [13] MA Jinting. *The theoretical connotation of the new pattern of Chinese university education in the new era*. *Modern Communication*, 2022(01): 32-37+122.)
- [14] Paul F. Buller and William A. Stull. *Strategy And Performance of operative Education*. *High education*, 2010-01:37.
- [15] Cui, W., L. Li and G. Chen, *Market-value oriented or technology-value oriented?—Location impacts of industry-university-research (IUR) cooperation bases on innovation performance*. *Technology in Society*, 2022. 70: p.102025.
- [16] Fernandes, G., et al., *Critical Success Factors of University-Industry R&D Collaborations*. *Procedia Computer Science*, 2023. 219: p.1650-1659.