

Strategies for Enhancing the Entrepreneurial and Employment Abilities of Art and Design Majors in Higher Vocational Education under the Mode of School Enterprise Integration

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Abstract: Although the number of graduates in the art design industry has increased year by year, there is still a shortage of high-level creative and skilled talents. To this end, this study explores the strategy of improving the entrepreneurial employability of students in higher vocational art design majors through the school-enterprise integration model. This study emphasizes that the curriculum setting should be closely connected with market demand, advocates close cooperation between colleges and industry experts, and ensures that students can master cutting-edge design concepts, technologies and practical experience. The study also analyzes the key factors affecting students' entrepreneurial employability, including entrepreneurial employment opportunities, students' professional abilities, the depth and breadth of school-enterprise cooperation, etc. At the same time, a diversified school-enterprise cooperation model and education mechanism is proposed. The study conducts a series of empirical analyses by comparing the results of various kinds of school-business collaboration (such as order-based cooperation, work-study integration model, etc.) on students' employability. The experimental results show that the diversification and depth of school-enterprise cooperation models affect the improvement of students' professional abilities, especially in improving students' practical experience, innovative thinking and entrepreneurial ability.

Keywords: school-enterprise integration; art design major; entrepreneurial employability; curriculum reform; practical experience

1. Introduction

With the continuous development of the global economy and technological innovation, the needs of the art design industry are also changing. Especially in the context of the rapid development of the cultural and creative industries, students majoring in art design need not only solid professional knowledge but also strong employability, entrepreneurship and innovation capabilities. This study aims to explore the impact of different school-enterprise cooperation models in higher vocational colleges on the employability, entrepreneurship and innovation capabilities of students majoring in art design. By comparing the performance of students under the order-based cooperation model, the work-study alternating cooperation model and the 2+1 talent training model, the role of improving students' comprehensive abilities is analyzed, and further useful practical experience and theoretical basis are provided for higher education reform.

This paper first reviews the employment status of art design majors and the challenges they face, and analyzes the discrepancy between corporate demands and the current educational model. Then, this paper introduces different types of school-enterprise cooperation models and their potential in improving students' employment and entrepreneurship capabilities. Subsequently, this paper describes the experimental design and methods in detail, and evaluates the effects of diverse school-enterprise cooperation paradigms by assessing the achievement of learners in the research class against the controlled group. Finally, combined with the data analysis results, the role of school-enterprise cooperation in promoting students' innovation ability and practical experience is discussed, and corresponding educational reform suggestions are put forward.

2. Related Work

Many scholars have studied the relationship between entrepreneurship education in higher education and the employability of graduates, and found that factors such as vocational education, entrepreneurship, and school-enterprise cooperation play a vital role in improving students' employability and entrepreneurship. Decker-Lange et al. explored the relationship between entrepreneurship education in higher education in the UK and the employability of graduates. Through semi-structured interviews with 45 higher education professionals, they found that there is a one-way relationship between vocational education and employability, which is influenced by social, stakeholder, and teaching-related factors [1]. Jain and Singla explored the relationship between entrepreneurship and employability, especially in the current rapidly changing business environment. The results suggested that higher education institutions should focus on cultivating the entrepreneurial spirit of graduates to enhance their employability [2]. Thapa reviewed the improvement of employability skills through vocational learning conducted through school-enterprise partnerships. The study emphasized that through workplace-based learning, students can acquire multifaceted employability skills and be prepared to enter the competitive market [3]. Karadzhev et al. aimed to integrate employability into core online courses to improve students' employability skills, awareness, and career management capabilities. Although students recognize the importance of employability, academic requirements and a lack of clear understanding of employability skills often lead them to neglect relevant training [4]. Rahmaningtyas et al. reviewed the role of competency-based learning in improving employability skills, focusing on its basic concepts, principles, and relevance to the rapidly changing workplace. The results showed that competency-based learning is critical to shaping the future workforce [5]. Donald et al. explored a model for improving college students' entrepreneurial intentions and happiness. The results showed that self-perceived academic performance was positively correlated with entrepreneurial intentions, leisure and entertainment were positively correlated with happiness, and self-perceived employability played a mediating role between the two [6].

AKINTELU and ADEGBITE explored how entrepreneurship courses in Nigerian universities affect students' entrepreneurial knowledge and employability, thereby promoting economic growth. They discovered that students' interest in entrepreneurship classes and their plans to start their own business were significantly positively correlated, with more interest leading to a 29% rise in intentions [7]. Yingjing et al. aimed to provide guidance and suggestions for improving the employability of students based on competency at Qingdao Hengxing University of Science and Technology, Shandong Province, using a mixed methods design. They proposed guidelines for improving students' employability, focusing on the cultivation of soft skills [8]. Zhipin et al. aimed to provide management guidelines for the leadership development of administrative staff in secondary vocational schools in Guangzhou, using a mixed method design including quantitative and qualitative research. They proposed that principals should improve their personal qualities and innovate their school-running philosophy [9]. Zulmi and Tentama sought to investigate how social intelligence as intelligence, adversities quotient, and economic training affected professional high school students' employment. The findings demonstrated that while social intelligence that economic preparedness had no discernible effects on employment, adversity quotient significantly improved employability [10]. Ahmad et al. explored the impact of the vocational and technical education and training program sponsored by the Penang Regional Development Authority on the employability of graduates. They found that graduate characteristics, learning outcomes and market dynamics are key factors affecting employability [11]. Ghorbani Piralidehi analyzed the entrepreneurial ability of 1,611 students at South Carolina State University through quantitative and descriptive surveys, using stratified random sampling. The results showed that the practical course had a general effect on improving students' entrepreneurial ability, with higher scores in personal ability and communication ability and lower technical professional ability [12]. Although existing studies have explored the relationship between entrepreneurship education and employability in higher education, most studies lack in-depth analysis of the specific school-enterprise cooperation model and educational practice to improve students' ability.

3. Methods

3.1 *Employment Status and Challenges of Art Design Majors*

The employment situation in the art design industry seems complicated. The number of graduates increases year by year, and the industry demand seems to be close to saturation. However, the actual situation shows that design units face difficulties in finding high-level creative and skilled application

talents. Although the number of graduates is huge, the requirements of enterprises for talents are constantly increasing. Many outstanding talents are difficult to meet the needs of the industry due to lack of innovation and practical experience. Another problem commonly faced by art design graduates is the lack of creative ability, which is closely related to the current examination-oriented education system. Examination-oriented education often emphasizes standardized answers and rote memorization, lacks the cultivation of innovative thinking and independent thinking ability, resulting in students lacking the necessary creativity and adaptability when entering the workplace.

In addition, students majoring in art and design lack sufficient entrepreneurial spirit after graduation. Although the art and design industry has a high degree of freedom and individuality, many graduates could have chosen the path of entrepreneurship, but due to the lack of systematic entrepreneurship education and practical experience, successful entrepreneurial graduates are still a minority. This phenomenon is particularly evident in the context of a lack of jobs in the overall job market.

3.2 Curriculum Reform to Promote Matching of Students' Employability with Market Demand

Students studying in art design must contend with a shifting labor market as a result of the social economy's and industry's rapid technological advancements. Therefore, higher vocational colleges should adjust course content in a timely manner according to industry needs, promote the deep integration of education and the market through school-enterprise cooperation, and further enhance students' employability and entrepreneurship capabilities. The following are several specific curriculum reform strategies:

(1) Industry demand-oriented curriculum setting

Colleges should first adjust course content according to the latest needs of industry development. The needs of the art design industry are becoming more and more diversified. In addition to the design direction of traditional fields, attention should also be paid to emerging digital media, user experience design, VR and AR technologies. Therefore, colleges should adjust courses according to these changes to ensure that students can master cutting-edge technology and design concepts. To this end, colleges can work closely with the design industry, invite enterprise experts to participate in course design, and help schools update and improve the syllabus so as to better cultivate students' ability to adapt to the future job market.

(2) Strengthening school-enterprise cooperation and the introduction of industry cases

Collaboration between schools and businesses can provide students greater hands-on experience and enable them to integrate their academic learning with real-world projects. In order to give students the opportunity to practice and hone their abilities in a real-world job setting, schools should build lasting partnerships with businesses and encourage hands-on activities including project collaboration, internships, and industry talks. Students' comprehension of the real-world implementation of design in the classroom is further enhanced by the introduction of industry case analysis, which also helps them become more adept at solving real-world issues.

(3) Course management and review mechanism

To ensure the timeliness and practicality of the course, colleges and universities should establish a curriculum development committee with the participation of industry experts and teachers. The committee regularly reviews and adjusts the course to ensure that the course content keeps up with industry standards and technological development trends. In addition, the committee can also promote interaction between teachers and enterprises by organizing industry exchange activities, help the course keep pace with the times and improve students' competitiveness.

(4) Application of modern technology in teaching

With the popularization of emerging technologies such as VR and AR, education should also keep up with the application trend of these technologies. Colleges and universities can use these technologies to create simulated working environments and allow students to practice design on virtual platforms, thereby improving students' design capabilities and practical experience. At the same time, modern technology can also provide more learning resources through online learning platforms, allowing students to improve themselves anytime and anywhere.

(5) Cultivation of interdisciplinary abilities

Modern art design requires not only professional design skills but also certain interdisciplinary

knowledge and abilities. Colleges and universities should help students improve their comprehensive abilities and adapt to the rapidly changing job market by offering interdisciplinary courses, such as combining business, technology and design. In addition, schools should also pay attention to the cultivation of students' soft skills, such as teamwork and communication skills, which are crucial in actual work.

(6) Strengthening career development and employment guidance

In addition to adjusting the course content, colleges and universities should also pay attention to students' career development planning. Schools should regularly hold career development lectures and employment guidance activities to help students clarify their career direction and provide them with more employment opportunities. At the same time, schools can also cooperate with enterprises to organize design competitions, entrepreneurship competitions and other activities to stimulate students' enthusiasm for innovation and entrepreneurship and lay the foundation for their future careers.

Through the above-mentioned curriculum reform measures, colleges and universities can help students better adapt to market demand, improve their entrepreneurial employment ability, and lay a solid foundation for future career development.

3.3 Factors Affecting Entrepreneurial Employability under the School-Enterprise Integration Model

Under the school-enterprise integration model, the factors affecting the entrepreneurial employment ability of students majoring in art design in higher vocational colleges are relatively complex, involving multiple aspects such as students' personal qualities, enterprise needs, social environment and policy support. The following is a detailed analysis of several major influencing factors:

(1) Entrepreneurial employment opportunities

Entrepreneurial employment opportunities are one of the key factors affecting students' entrepreneurial employment ability. Under the current economic and social background, the national policy demand for art design talents has gradually increased. In particular, driven by policies such as cultural and tourism integration, rural revitalization, and digital economy, art design majors have ushered in a large number of employment and entrepreneurial opportunities. For example, in the rural revitalization strategy, design innovation and cultural and creative industries have become an important driving force for local economic development. Many local governments and enterprises are seeking talents with innovative design capabilities. In this context, if students can seize these industry "bonus points", it will help them quickly adapt to and integrate into the market and increase their success rate in entrepreneurship and employment.

In this process, schools and enterprises should pay attention to these new industry trends and market demands and provide students with relevant educational resources and entrepreneurial support. By providing a curriculum system and practical opportunities that are closely aligned with industry needs, we help students understand and grasp the latest development trends in the industry and enhance their entrepreneurial awareness and capabilities.

(2) Personal factors of students

The entrepreneurial employment ability of students is affected by many factors, including their professional knowledge, innovation ability, practical experience, teamwork ability, communication ability, etc. Students majoring in art design usually need to have strong creative design ability, good artistic literacy, and high market sensitivity. In addition, as the employment market's requirements for comprehensive abilities increase, students' interdisciplinary knowledge and soft skills also become crucial.

Under the school-enterprise integration model, whether students can gain richer experience in internships or practices in enterprises directly affects their competitiveness in the employment market. Through cooperation between schools and enterprises, students can not only learn more professional skills but also improve their ability to adapt to the market, enhance their innovative thinking, and accumulate valuable experience through practice, thereby increasing the probability of success in entrepreneurship and employment.

(3) Enterprise demand

Enterprises are an important external factor in improving students' entrepreneurial employment ability. The needs of enterprises determine whether students can successfully enter the workplace and

what specific jobs they can do. With the development of social economy and scientific and technological progress, the demand of enterprises for professional art design talents is becoming increasingly diversified. From traditional design positions to emerging fields such as digital media, user experience design, and virtual reality, enterprises' demand for cross-disciplinary compound talents is increasing. Therefore, when training students, schools must keep up with industry needs and adjust the curriculum to ensure that students master the latest design tools and technologies and have the ability to adapt to industry changes.

The depth and breadth of school-enterprise cooperation directly determines the matching degree between students and enterprises. Through school-enterprise cooperation, schools can better understand the actual needs of enterprises and dynamically adjust the course content according to these needs to improve students' employment competitiveness.

(4) Social environment and policy support

Social environment and policy support are also key factors affecting students' entrepreneurial employment ability. In recent years, the national and local governments have increased their support for creative industries, cultural industries, digital economy and other fields. For example, the government has introduced a series of support policies, such as entrepreneurial funding support, tax incentives, and entrepreneurial incubators. The introduction of these policies provides students with more entrepreneurial opportunities and resource support.

In addition, the recognition and demand of society for creative industries and art design talents are also increasing. With the rapid development of the creative industry, especially the advent of a digital and information society, the employment market in the art design industry is changing rapidly. This change in the social environment has prompted students to continuously improve their market adaptability, actively understand industry needs, and enhance their entrepreneurial employment capabilities during the learning process.

(5) Cultivation of students' entrepreneurial and employment intentions

In addition to the above factors, students' entrepreneurial employment intentions are also an important factor affecting their entrepreneurial employment capabilities. Many higher vocational colleges have neglected students' own interests and development intentions when cultivating students' entrepreneurial employment capabilities. Formulating education programs based on students' personal interests and career plans can better mobilize students' initiative and creativity, thereby providing students with more accurate employment and entrepreneurship guidance.

To this end, schools should guide students to form clear career goals during the learning process through entrepreneurship courses, career planning, employment counseling and other links, and enhance their ability to start their own businesses and find employment. At the same time, by carrying out various entrepreneurial competitions, innovative projects and other activities, students' entrepreneurial enthusiasm can be stimulated and opportunities for them to display and exercise can be provided.

(6) Diversified evaluation mechanism

Under the school-enterprise integration model, the improvement of entrepreneurial employment capabilities also requires an effective evaluation mechanism. Through questionnaires, field diagnosis, industry expert discussions and other methods, schools can fully understand the strengths and weaknesses of students in the process of entrepreneurship and employment. Based on these evaluation results, schools can adjust the training program in a targeted manner to ensure that students' abilities in all aspects can be balanced.

In addition, enterprises and society can also provide students with performance evaluations at work through feedback mechanisms to help schools adjust training strategies in a timely manner so that students can better adapt to market changes and improve their success rate in entrepreneurship and employment.

Through the above analysis, it can be seen that there are many factors that affect the entrepreneurial employment ability of students majoring in higher vocational art design, involving individual students, corporate needs, social environment and policy support. In the school-enterprise integration model, schools, enterprises and society should work together to provide students with opportunities and support for entrepreneurship and employment from multiple dimensions to ensure that students stand out in the fiercely competitive market and have a successful career.

3.4 The Subject of Cultivating Entrepreneurial Employment Ability of Students Majoring in Higher Vocational Art Design under the School-Enterprise Integration Model

From the perspective of school-enterprise integration, cultivating students' entrepreneurial and employable abilities requires the joint efforts of multiple parties. The government should pay attention to the innovative development of art design by strengthening financial support, implementing entrepreneurial and employment policies, and optimizing the industrial structure. Enterprises should increase cooperation with universities, provide practical opportunities, and help students gain employment experience. Universities need to establish a sound entrepreneurial and employment management mechanism, build a first-class teaching staff, and ensure that teaching quality is aligned with market demand through the top-level design of school-enterprise cooperation.

Students need to take the initiative to improve their professional abilities, develop short-, medium- and long-term entrepreneurship and employment plans, and clarify their personal development goals. Graduates can share their entrepreneurship and employment experiences, provide valuable career advice and job information to students, and form a good interaction within and outside the industry. Teachers should optimize the entrepreneurship and employment guidance model, provide students with targeted guidance, and help them accumulate experience in the environment of school-enterprise cooperation.

3.5 Strategies to Improve Students' Entrepreneurial and Employability

(1) Diversified school-enterprise cooperation models

At present, there are many types of school-enterprise cooperation models, each with different characteristics and advantages. According to the specific conditions of different universities, the most appropriate cooperation model can be selected to enhance students' entrepreneurial and employability. The main school-enterprise cooperation models include order-based cooperation, work-study alternation, 2+1 talent training model and part-time work-study model.

Order-based collaboration model: This model primarily calls on educational institutions to adapt their curricula to the demands of businesses in order to guarantee that students' professional knowledge and abilities satisfy industry demands. Students can increase their employability by gaining an understanding of the real demands and working conditions of businesses during the learning process by establishing connections with them beforehand. The advantage of this model is that it can closely integrate the actual work tasks of enterprises in course design and provide more targeted practical opportunities.

(2) Work-study alternation cooperation model

This model requires students to alternate between theoretical learning and practical work during the learning process. Through internships in enterprises, students can combine the knowledge learned in class with actual work and solve real work problems. Students accumulate work experience by directly participating in projects. This model plays an important role in improving students' practical operation ability and innovative thinking.

2+1 talent training model: This model is usually implemented in higher vocational colleges. Students study basic courses in the first two years and directly enter enterprises for practice and project cooperation in the third year. This model can effectively bridge the gap between students' theory and practice and enhance their practical ability and adaptability to enterprises.

(3) Part-time work and study model

Students study at school on the one hand and work in enterprises on the other hand, using their extracurricular time to accumulate practical experience. This model can not only help students improve their employability but also cultivate their professional qualities and teamwork ability.

Each university should choose a suitable school-enterprise cooperation model based on its own school characteristics, students' actual needs and the characteristics of local industries, and ensure that students can learn solid professional knowledge and gain rich practical experience while in school from the aspects of training objectives, curriculum setting, teaching methods, etc. This cooperation model will help students improve their employment competitiveness and lay a solid foundation for their future entrepreneurship and employment.

(4) Integrated and diversified education mechanism

In a setting of school-enterprise integration, building a combined and broadening education mechanisms is necessary to improve the an entrepreneur and job placement of art design majors in vocational schools. The following strategies can be used to cultivate learners and their extensive skill sets:

1+2+3+N education mechanism: This mechanism consists of four levels, "1", "2", "3" and "N", representing different education focuses and methods.

"1" represents the curriculum system. The curriculum should focus on improving students' core entrepreneurial and employment abilities, focusing not only on imparting basic theoretical knowledge but also on cultivating innovative abilities and practical skills. The curriculum design should be closely integrated with industry needs to enhance students' practical and employability abilities.

"2" represents the dual-line education model of school education and enterprise training. Schools impart knowledge and cultivate abilities by setting up professional courses and organizing extracurricular activities; while enterprises help students apply the learned theoretical knowledge to practical work by providing internship opportunities and participating in project cooperation. The collaborative training approach between businesses and schools supports students' holistic growth and enhances their job readiness and entrepreneurship abilities.

"3" represents three types of growth places, namely classroom learning, enterprise internships and workshop research. Classroom learning is the main way for students to acquire theoretical knowledge; enterprise internships are the key link in transforming classroom knowledge into practical abilities; and workshop research is an important platform for students to innovate and explore in practice. Through the combination of these three types of growth places, students can develop various abilities in different environments.

"N" stands for multiple educational models, which reflects the diversity of education. Schools can provide learning opportunities at different levels through multi-dimensional training methods such as online learning, virtual simulation, and industry competitions to promote the improvement of students' comprehensive abilities. For example, students can be organized to participate in industry competitions, cooperative research projects and other activities to stimulate their innovation potential and practical ability.

Through this integrated and diversified education mechanism, students can not only learn professional knowledge in the classroom but also contact the actual industry through various channels and accumulate practical experience, thereby comprehensively improving their entrepreneurial and employability. This system supports deep collaboration between businesses and schools, helps students grow in a personalized way, and accommodates their various learning demands.

4. Results and Discussion

4.1 Experimental Design

A control group and an experimental group are among the participants in this study. In order to assess the effects of various school-enterprise cooperation approaches on students' job search and entrepreneurial skills, the experimental group chose students from three art and design colleges and engaged in a variety of school-enterprise interaction models, including order-based, work-study alternating, and 2+1 talent training models. To perform a comparative analysis with the study population and assess the distinctions between the traditional schooling model and the school-enterprise cooperation model, the group serving as the control is chosen to consist of a comparable number of art and design students that only receive regular classroom instruction and do not take part in any type of school-enterprise collaborating.

4.2 Experimental Variables

The independent variables of this study include school-enterprise cooperation models (such as order-based, work-study alternation, 2+1 talent training model, etc.) and education models (1+2+3+N education mechanism), aiming to explore the impact of different education and cooperation models on students' abilities. The dependent variables cover students' employability, entrepreneurship, innovation, and practical experience. By evaluating these dependent variables, the effects of school-enterprise cooperation models and education models on students' abilities are analyzed.

4.3. Experimental Process and Data Analysis

(1) Preliminary preparation

Corporate cooperation: Cooperating with different types of design companies (such as advertising companies, creative studios, and Internet companies) to provide different internship opportunities and practical projects.

Course design and implementation:

In the experimental group, different types of school-enterprise cooperation models are selected, and courses that are in line with the industry (for example: creative design, digital media art, etc.) are designed in combination with actual industry needs.

Students in the experimental group will practice through corporate internships, workshops, etc. while studying on-campus courses to gain experience in actual corporate cases.

Implementation cycle: Each cooperation model is implemented for 2 semesters (about one year), during which students will participate in corporate projects or entrepreneurial training, and the school will regularly adjust courses and provide feedback based on actual conditions.

(2) Mid-term evaluation

Periodic assessments on students' entrepreneurial employment skills are carried out, innovation capabilities, etc., and adjust teaching content and methods through enterprise feedback, project outcome evaluation at the end of the semester, and student self-evaluation.

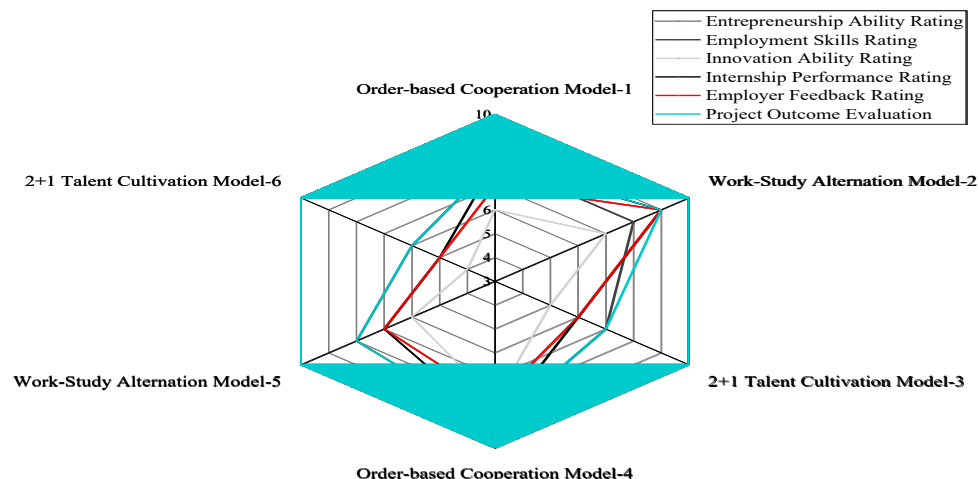


Figure 1. Comparison of student ability development effects

According to the experimental data analysis in Figure 1, different school-enterprise cooperation models have different effects on the various abilities of students majoring in higher vocational art design. Under the order-based cooperation model (student numbers 1 and 4), students' scores are generally high. Specifically, the entrepreneurial ability scores are 7 and 8, the employment skills scores are 8 and 9, the innovation ability scores are 6 and 8, the internship performance scores are 8 and 9, the enterprise feedback scores are 7 and 8, the project results evaluation is 8 and 9, and the student self-evaluation is 7 and 9. It can be seen that the order-based cooperation model can effectively improve students' practical ability and employment adaptability, especially in terms of employment skills and project results. In contrast, the 2+1 talent training model (student numbers 3 and 6) performs relatively poorly in improving various abilities. Student 3 scores 6 for entrepreneurship, 7 for employment skills, 5 for innovation, 6 for internship performance, 6 for enterprise feedback, 7 for project outcome evaluation, and 6 for student self-evaluation. Student 6 scores even lower, with 5 for entrepreneurship, 6 for employment skills, 4 for innovation, 5 for internship performance, 5 for enterprise feedback, 6 for project outcome evaluation, and 5 for student self-evaluation. This shows that the 2+1 model is relatively limited in improving students' comprehensive abilities, and further improvements may be needed in the curriculum and practice links.

(3) Final evaluation

Through comprehensive indicators such as employment rate, entrepreneurship rate, innovation

ability improvement, and academic performance, the effect of different school-enterprise cooperation models on improving students' employment and entrepreneurship abilities is evaluated.

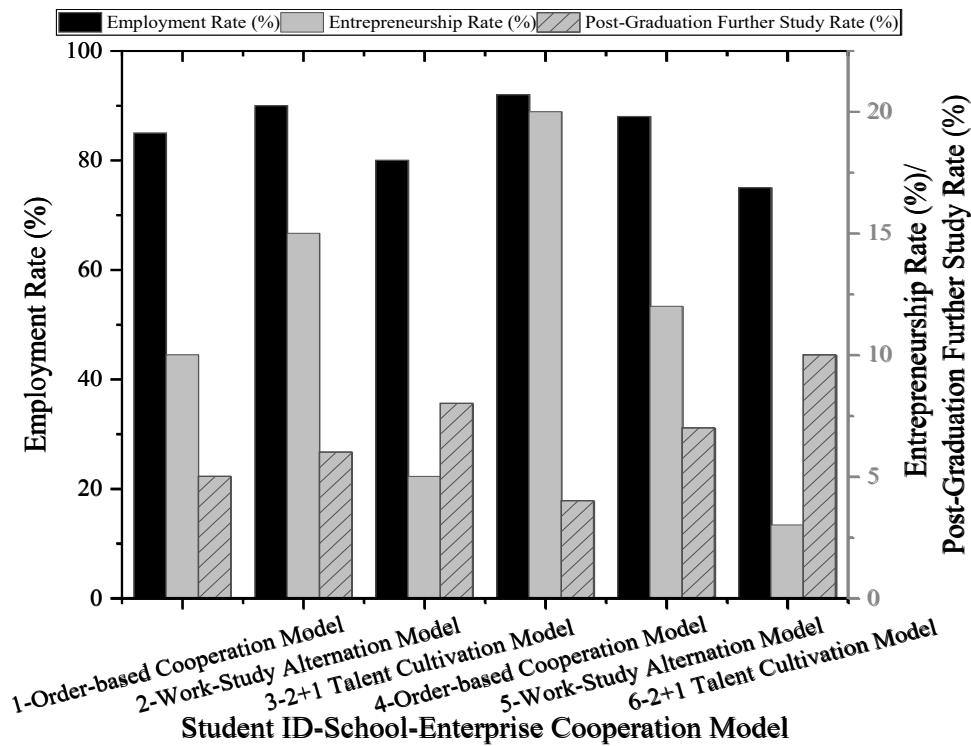


Figure 2. Employability and entrepreneurship assessment

The employment rate of students adopting the work-study cooperation model is the highest, reaching 90%, while the employment rate of the 2+1 talent training model is lower, at 75%. This result shows that the work-study cooperation model may improve students' employment competitiveness through more frequent practice and industry contact. The employment rate of the order-based cooperation model is slightly lower than that of the work-study cooperation model, but it still remains at a high level (between 85% and 92%). In contrast, the 2+1 talent training model may focus more on academic learning, resulting in insufficient entrepreneurial motivation among students. In terms of further studies, the rate of further studies for students in the 2+1 talent training model is relatively high, at 10%, while the rates of further studies for the order-based cooperation model and the work-study alternating cooperation model are relatively low, at 4%-7%, respectively, as shown in Figure 2. This shows that the 2+1 model may provide students with more academic backgrounds and opportunities for further studies, while the school-enterprise cooperation model focuses on direct employment, so the proportion of students in academic further studies is relatively low.

In terms of improving innovation ability, the work-study cooperation model performs the best, with scores ranging from 7 to 9, with the highest being 9. This shows that the work-study cooperation model can significantly improve students' innovation ability through deeper practical experience and industry interaction. In contrast, the innovation ability improvement scores of the order-based cooperation model and the 2+1 talent training model are relatively low, at 7-8 and 5-6, respectively. This shows that although the order-based cooperation model and the 2+1 talent training model have certain practical combinations in some aspects, their innovation ability improvement effect is relatively weak, which may be because these two models focus more on vocational skills training and lack sufficient innovative thinking training. In terms of satisfaction with school-enterprise cooperation, the work-study alternating cooperation model scores the highest, all 8-9, indicating that students are relatively satisfied with the practical experience and enterprise participation of this model. The satisfaction score of the order-based cooperation model is 7-8, which is slightly lower than the work-study alternating model, but still shows high student satisfaction. In contrast, the satisfaction score of the 2+1 talent training model is the lowest, only 6-7, which may be related to the relatively low degree of enterprise cooperation in this model and the lack of recognition of its practical application value by students, as shown in Figure 3.

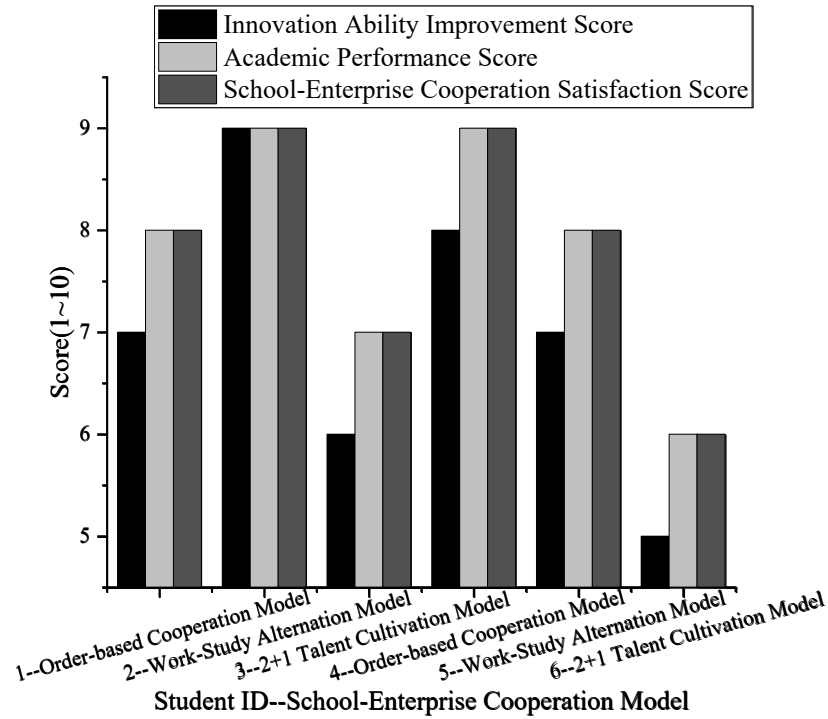


Figure 3. Comparison of innovation ability, academic performance and satisfaction with school-enterprise cooperation

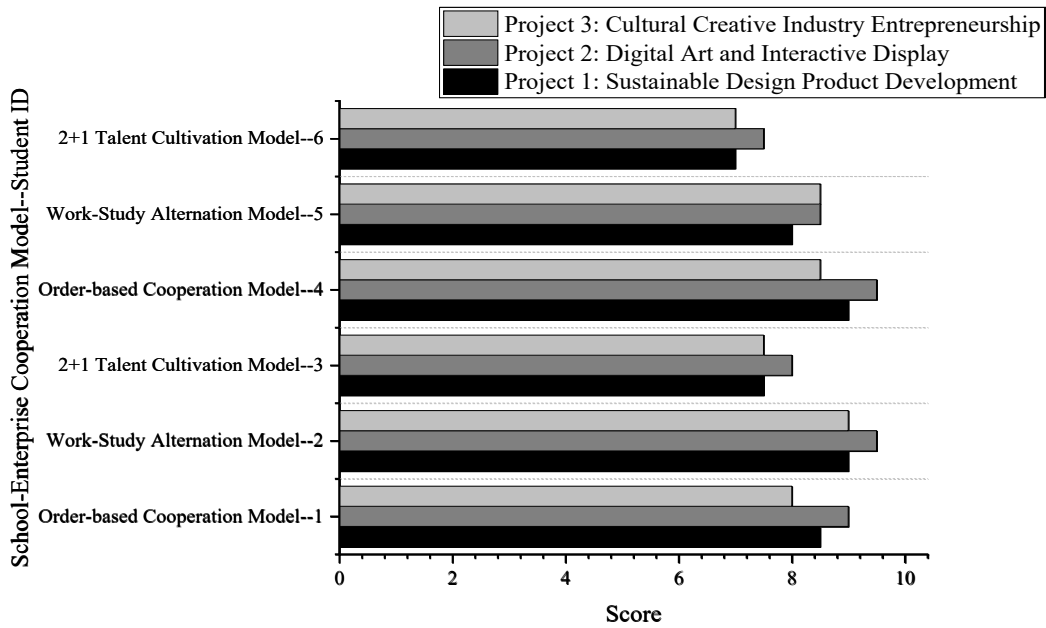


Figure 4. Project scores

In the sustainable design product development project, students in the order-based cooperation model and the work-study cooperation model score higher, 9.0 respectively, showing that students in these two models can effectively transform ideas into actual products and conduct market research, prototype production and business plan writing. This shows that the school-enterprise cooperation under these models provides students with strong practical opportunities, thereby improving their project implementation capabilities. In the digital art and interactive display project, students in the work-study cooperation model score the highest, 9.5, indicating that students in this model can make good use of the latest digital tools to create high-quality interactive display effects. The order-based cooperation model follows closely, scoring 9.0, also showing strong creativity and display capabilities. In the cultural and creative industry entrepreneurship project, the difference in students' scores is small, but students in the order-based cooperation model and the work-study cooperation model scored higher,

8.0 and above, respectively, as shown in Figure 4.

Table 1. Research on the impact of school-enterprise cooperation model on the entrepreneurial ability and innovative thinking development of art design students

Student ID	School-Enterprise Cooperation Model	Project Creativity Presentation	Market Research Ability	Innovative Project Realization	Entrepreneurial Thinking Development	Cooperation Enterprise Evaluation
1	Order-based Cooperation Model	8	7	8	9	9
2	Work-Study Alternation Model	9	8	9	10	10
3	2+1 Talent Cultivation Model	6	6	7	8	7
4	Order-based Cooperation Model	8	8	8	9	8
5	Work-Study Alternation Model	7	7	8	9	9
6	2+1 Talent Cultivation Model	5	5	6	7	6
7	Traditional Classroom Education (Control Group)	4	4	5	6	5
8	Traditional Classroom Education (Control Group)	3	4	4	5	4
9	Traditional Classroom Education (Control Group)	5	5	5	6	5
10	Traditional Classroom Education (Control Group)	4	3	4	5	4

Note: The rating range is 1 to 10

From the data in Table 1, it can be seen that in the "order-based cooperation model" and the "work-study alternating cooperation model", students' entrepreneurial thinking and innovation ability are more prominent. In particular, in terms of market research ability, project creative display and innovative project realization, the scores of students in the experimental group are generally higher. For example, the student participating in the work-study alternating cooperation model (No. 2) scores 9, 8 and 9 in project creative display, market research ability and innovative project realization, respectively, and his entrepreneurial thinking development and cooperative enterprise evaluation also receives high evaluations (10 and 10, respectively). Among the students in the control group, there is a general situation of low entrepreneurial ability and innovative thinking. The students of traditional classroom education (No. 7-10) generally have low scores in project creativity display, market research ability and innovative project realization, which shows that the traditional education model is insufficient in cultivating students' entrepreneurial ability and innovative ability. For example, the student No. 7 scores 4, 4, and 5 in these aspects, and his entrepreneurial thinking and enterprise evaluation are also low (6 and 5, respectively).

5. Conclusion

This study proposes a series of effective countermeasures and methods in the process of exploring the school-enterprise integration model to improve the entrepreneurial employment ability of students majoring in higher vocational art design. Through a comprehensive analysis of the employment status and challenges of the art design industry, the deficiencies of students in terms of creative ability, practical experience and entrepreneurial spirit are identified, and solutions are proposed from multiple perspectives such as curriculum reform and innovation of school-enterprise cooperation models. In terms of methodology, this study combines qualitative and quantitative analysis, and through methods such as field diagnosis, comprehensively evaluates the factors that affect students' entrepreneurial employment ability, and further improves the cultivation path of entrepreneurial employment ability. Specifically, the diversified modes of school-enterprise cooperation, the participation of industry experts, the application of modern technology, and the integrated and diversified education mechanism are all considered to be effective ways to promote students' employment and entrepreneurship. However, there are also some limitations in the study, such as the relatively narrow sample range and the representativeness of the survey data may be limited by the region. Future research can expand the sample size and explore the impact of school-enterprise cooperation models in different regions and

different types of universities on students' employability, so as to provide more precise guidance for policy formulation and practice improvement.

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