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Research on the "Dual System" Talent Cultivation Model of School-Enterprise Cooperation

-- Taking the Packaging Planning and Design Major as an Example

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Abstract

Taking the packaging planning and design major as the research object, this paper focuses on the application of the "dual system" talent cultivation model of school-enterprise cooperation. By deeply analyzing relevant educational theories and extensively collecting and studying practical cases at home and abroad, the purpose is to comprehensively and deeply reveal the significant advantages of this cultivation model in improving the practical ability of packaging major students and enhancing their adaptability to the rapidly changing market demands. On this basis, this research further discusses the challenges and problems faced by this model in the implementation process from multiple dimensions, such as the depth and breadth of school-enterprise cooperation, the rationality of curriculum setting, and the effectiveness of practical teaching. At the same time, combined with the actual situation and development trends, a series of practical optimization strategies and constructive suggestions are put forward in a targeted manner to promote the more perfect and efficient operation of the "dual system" talent cultivation model in the packaging major and provide strong support and guarantee for cultivating high-quality packaging planning and design talents.

Keywords

School-enterprise cooperation; dual system; packaging planning and design major; talent cultivation.

1. Introduction

In the context of the rapid development of digitization and informatization today, the creative industry is playing an increasingly important role in the global economy[1] . As consumers' demand for personalized and innovative products continues to rise, the diversity and complexity of the creative industry also increase[2] . This change has prompted the continuous evolution of enterprises' demand for talents. Especially in the field of packaging planning and design, excellent talents have become a key factor in promoting industrial development[3] .

However, the traditional talent cultivation model often focuses on the imparting of theoretical knowledge and neglects the cultivation of practical abilities, making it difficult for students to adapt to enterprise needs after graduation. Enterprises hope to recruit talents with practical operation abilities and innovative thinking, which is exactly what the existing education system lacks. Therefore, it is particularly important to re-examine the training mechanism for talents in the creative industry and explore an education model that better meets the needs of the industry[4] .

In this context, the "dual system" talent cultivation model of school-enterprise cooperation emerges as the times require. This model integrates theory and practice, emphasizes the close

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cooperation between schools and enterprises, and enables students to gain valuable experience in a real working environment through practical teaching and internship links[5] . In this way, students can not only master solid professional knowledge but also cultivate good professional qualities and teamwork abilities, meeting the urgent need of the creative industry for compound talents[6] .

2. The Connotation and Characteristics of the "Dual System" Talent Cultivation Model

The "dual system" talent cultivation model is a new education system based on the coordinated development of education and industry, emphasizing deep cooperation between schools and enterprises. In this model, theoretical learning is combined with practical training to cultivate high-quality talents that meet market demands.

The core characteristics of this model are reflected in the following aspects. First, the curriculum setting is flexible and targeted, adjusted according to industry needs and enterprise characteristics. For example, in the packaging planning and design major, the curriculum not only includes traditional design theories but also integrates content such as marketing and brand management to adapt to the rapidly changing market environment.

Second, the proportion of practical teaching links is significantly increased. During their school years, in addition to receiving classroom teaching, students also need to participate in actual enterprise projects to obtain real work experience. This "learning by doing" approach effectively improves students' practical operation abilities and innovative thinking.

Furthermore, the construction of a dual-qualified teacher team is an important part of the "dual system" model. Teachers not only have a solid theoretical foundation but also must have rich industry experience. Such teaching staff can better combine theory with practice and provide students with more practical guidance.

Finally, attention is paid to collaborative innovation that combines industry and academia. Schools and enterprises jointly carry out scientific research projects to promote technology transformation and application, forming a virtuous circle. Through this cooperation, students can not only be exposed to the latest industry trends and technologies but also cultivate the ability to solve practical problems in practice， As shown in Figure 1.

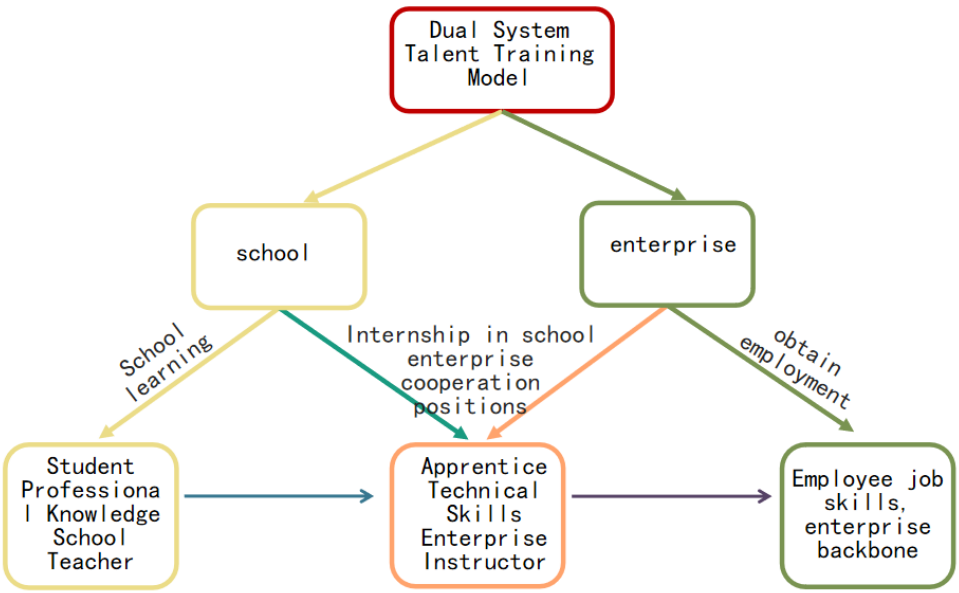

Figure 1. The “Dual System” talent cultivation model.

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3. The Necessity of Implementing the "Dual System" Talent Cultivation Model in the Packaging Planning and Design Major

(1) Industry Demand

In the packaging design industry, innovation and practical ability are indispensable qualities for designers. The industry's requirements for designers are not only to design packaging with attractive appearance and practical functions, but also to be able to sense the pulse of the market and meet the deep-seated needs of consumers and customers. Therefore, compound talents with practical operation experience and innovative thinking have become urgently needed in the industry. Through the "dual system" talent cultivation model, students can learn theoretical knowledge in an academic environment and at the same time participate in actual projects in an enterprise environment. This can not only accumulate valuable practical experience but also cultivate forward-looking innovative thinking, enabling them to better adapt to the development trend of the packaging design industry. Taking packaging design as an example, by participating in enterprise projects, students can directly experience the whole process of market research, customer communication and design implementation, thereby improving their design skills and innovation ability and designing packaging solutions that not only meet market needs but also have an impact.

(2) Professional Characteristics

The packaging planning and design major emphasizes the combination of practice and innovation. Students not only need to master the basic theories and techniques of design, but also need to have the ability to transform abstract creativity into specific design works. The traditional education model is often difficult to meet this demand, while the "dual system" talent cultivation model provides abundant practical opportunities to allow students to continuously hone and improve their design ability and creative level in a real working environment. For example, in the field of brand design, through practice in enterprises, students can deeply understand the cultural connotations, customer preferences and market strategies of different brands, and learn how to use design language and material technology to realize the design of brand image, thereby significantly improving their professional qualities.

(3) Improving Teaching Quality

The core of the "dual system" talent cultivation model is school-enterprise cooperation, that is, integrating actual enterprise projects into teaching to make the teaching content simulate the actual industry. Real cases of enterprises enrich teaching materials and help students combine theory with practice and understand knowledge points. At the same time, the advanced equipment and resources provided by enterprises create excellent practical scene learning conditions for students. Taking the packaging planning and design major as an example, enterprises can provide the latest packaging materials and packaging equipment, allowing students to learn cutting-edge technologies in the industry in practice and enhance their practical ability and innovative consciousness. In addition, enterprise experts and technical personnel can also participate in teaching, provide professional guidance for students, and help teachers improve teaching levels, thereby comprehensively improving teaching quality.

4. Implementation Paths of the "Dual System" Talent Cultivation Model for Packaging Planning and Design

(1) Constructing the Curriculum System

Combining enterprise needs and industry standards to jointly formulate the curriculum system is a key step in realizing the "dual system" talent cultivation model. When formulating the curriculum system, schools and enterprises need to conduct in-depth research on industry development trends and enterprise job requirements to clarify the knowledge, skills and

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qualities that students should possess. Taking the packaging planning and design major as an example, the curriculum system of the packaging planning and design major first sets up theoretical courses that are studied in school first, such as "Color Science", "Graphic Design", "Packaging Structure Design", and "Packaging Decoration Design", and then offers professional project training courses to take students to enterprises to participate in the production of actual projects, such as gift packaging design and product packaging box design. In this way, by realizing the seamless connection between curriculum content and job abilities, students can quickly adapt to job requirements after graduation.

Great attention should be paid to the logic and coherence between courses in the process of constructing the curriculum system. For example, the curriculum setting should follow a certain order. Start with basic courses such as "Color Science" and "Graphic Design" to enable students to lay a theoretical and skill foundation first, and then gradually transition to professional core courses such as "Packaging Structure Design" and "Packaging Decoration Design" to improve students' professional skill levels step by step. At the same time, the time for theoretical teaching and practical operation must be reasonably allocated to ensure that students can have sufficient time for practical operation exercises while mastering theoretical knowledge.

(2) Construction of Practice Bases

School-enterprise cooperation in building on-campus and off-campus practice bases is an important way to provide students with practice places and equipment. The on-campus practice base can replicate the working environment of enterprises and be equipped with advanced design software and equipment, so that students can conduct practical operation training on campus. The off-campus practice base allows students to directly participate in the real projects of enterprises and experience the overall work flow and enterprise management system of enterprises.

Taking the off-campus internship sites established in cooperation with local packaging and printing enterprises as an example, schools regularly organize students to go to these companies for post internships. During the internship process, students can be guided by professional designers to participate in the design and implementation of specific projects, so as to learn the skills of communicating with customers and the importance of teamwork. In addition, schools can also invite enterprise technical experts to come to the on-campus practice center to give lectures and trainings for students to ensure that students can master the new technologies and development trends of the industry in a timely manner.

(3) Construction of Professional Teaching Teams

Strengthening the construction of "double-qualified" teaching teams is a key measure to improve education quality. Schools introduce senior enterprise technicians as part-time teachers. These technicians have profound practical experience and a deep understanding of the industry frontier, and can impart the most cutting-edge design concepts and skills to students. At the same time, full-time teachers in schools can also improve their own practical skills and teaching effects through interaction and cooperation with these technicians.

Schools regularly invite senior enterprise designers to campus to carry out special lectures or skill training activities, and share their rich practical experience and typical cases in enterprises. At the same time, teachers also have the opportunity to work with these industry experts to conduct teaching discussions and technological project research and development. Through this series of cooperation, teachers can quickly improve their professional knowledge and practical operation skills. In addition, schools should also encourage teachers to go to enterprises for on-the-job training and learning, personally experience enterprise operations, accumulate valuable practical experience, and transform this experience into teaching materials to enrich teaching content.

(4) Optimizing and Improving the Evaluation System

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Constructing a comprehensive evaluation system with the joint participation of schools and enterprises to comprehensively evaluate students' comprehensive abilities and qualities. The evaluation system covers many aspects such as students' mastery of theoretical knowledge, practical operation skills, innovative thinking, and teamwork.

In the evaluation of theoretical knowledge, traditional examination forms can be adopted; in the evaluation of practical skills, it can be evaluated according to students' performance in enterprise internship projects; in the evaluation of innovative thinking, it can be measured through students' design works and project proposals; in the evaluation of teamwork, it can be evaluated by observing students' cooperation and contributions in team projects. When evaluating, industry standards and enterprise evaluation feedback are introduced to ensure that students' ability evaluation is more comprehensive and fair from multiple aspects，As shown in Figure 2.

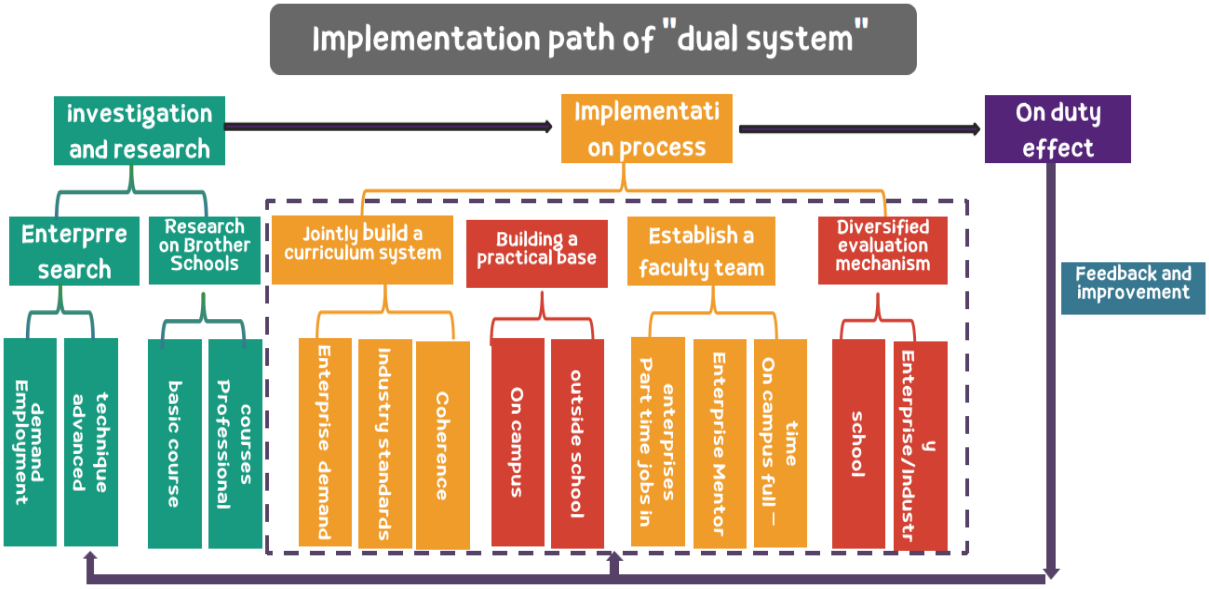

Figure 2. Implementation paths of the “Dual System” talent cultivation.

5. Implementation Effect and Problem Analysis

(1) Implementation Effect

1. Significantly enhanced students' practical skills

Adopting the "dual system" education model enables students to gain rich practical experience in the enterprise environment, which greatly improves their practical operation skills. Taking the packaging planning and design major as an example, students directly participate in product research and development and optimization in enterprises. They not only master various design software and tools proficiently but also have an in-depth understanding of the entire process from market research and concept conception to packaging design. The accumulation of this practical experience enables students to solve practical problems more efficiently, and the quality and innovation of their works are also significantly improved.

2. Significantly enhanced employment competitiveness

Graduates under the "dual system" education model show stronger competitiveness in the job market. Since they have a full understanding of corporate culture and work requirements during their studies, they can quickly adapt to the workplace environment and are therefore favored by enterprises. The employment rate and employment level of graduates have significantly increased. Not only are there more employment opportunities, but salary and job

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prospects are also brighter. For example, in the field of packaging planning and design, many graduates have successfully joined well-known design institutions with the experience and excellent portfolios accumulated during their internships and have achieved remarkable achievements in their careers.

(2) Challenge Analysis

1. Insufficient level of school-enterprise cooperation

Although the "dual system" education model advocates school-enterprise cooperation, in actual implementation, the participation of some enterprises is insufficient and cooperation often becomes a mere formality. Individual enterprises provide students with ordinary internship positions but do not participate in the talent cultivation process. When students enter internships, they may be assigned to perform repetitive work on the production line, resulting in a lack of opportunities to participate in projects or scientific and technological research and development. This affects their understanding of enterprise operations and industry trends and also limits their ability development. This situation may be because enterprises are worried that interns will interfere with the production process or affect product quality, or because enterprises believe that it is difficult to obtain economic benefits from interns in the short term. In addition, there is also insufficient communication and coordination between schools and enterprises, making it difficult to quickly find effective solutions when problems occur in cooperation.

2. Disconnection between curriculum content and reality

There is a problem of inconsistency between the content taught in schools and the actual needs of enterprises between teaching and practical operations, that is, the classroom content is disconnected from reality. The theoretical curriculum content in schools is outdated and even far from the actual situation of enterprises, making it difficult for students to adapt when interning. Taking the packaging planning and design major as an example, school teaching may focus on gorgeous layout design and high-quality material selection, while enterprises emphasize production processes and cost control. This disconnection between teaching and practical operations leads to students needing a period of adjustment to meet actual work standards when interning in enterprises. This phenomenon is caused by insufficient communication between schools and enterprises in curriculum setting and practical plans; the rapid changes in industry development make the curriculum update of schools unable to keep up with the changing needs of enterprises; at the same time, teachers' understanding of the industry status quo is insufficient, and they fail to effectively combine theory with practice in teaching.

3. The ability of the teaching staff needs to be improved

The teaching quality and stability of part-time teachers need to be enhanced, and the cultivation of "double-qualified" teachers still needs to be strengthened. Although enterprise technicians have rich practical experience, they may have deficiencies in teaching methods and skills. Due to their own jobs, part-time teachers may not be able to devote themselves to teaching wholeheartedly, affecting teaching stability. At the same time, although school teachers have a solid theoretical foundation, they are relatively lacking in practical experience and may appear powerless when guiding students in practice. To improve the situation of the teaching staff, schools should strengthen the training and supervision of part-time teachers and improve their teaching ability. In addition, teachers are encouraged to participate in enterprise practice, accumulate experience, and improve their professional level. By establishing a teacher team cooperation mechanism, promoting exchanges and cooperation between school teachers and enterprise technicians, and jointly improving teaching levels.

In order to effectively promote the implementation of the "dual system" talent cultivation plan for the packaging planning and design major, the government needs to implement a set of

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incentive policies to encourage enterprises to more actively participate in cooperation with schools. For example, policies including tax reductions and exemptions and financial subsidies can reduce the economic burden on enterprises and transform their motivation for cooperation in the field of education. The government can establish the responsibilities of enterprises in vocational education through legislative means, such as forcing enterprises to accept student internships and provide employment opportunities according to a certain proportion, and assist schools in obtaining necessary funds, facilities and technical support. In addition, the government should consider implementing tax reductions for enterprises that support schools, especially enterprises that provide internship opportunities, training resources, and jointly conduct scientific research and technological innovation with schools. Through financial subsidies and reward plans, the government can further reduce the cost of enterprise cooperation and increase their enthusiasm for participating in school-enterprise cooperation.

In order to ensure the smooth implementation of school-enterprise cooperation, the government should establish a special coordination agency, such as setting up a vocational education school-enterprise cooperation guidance committee. The main responsibility of this committee is to promote exchanges between schools and enterprises, hold regular exchange activities, and help solve problems that arise in the cooperation process, thereby building a smooth communication platform for school-enterprise cooperation. With this mechanism, the quality and effectiveness of school-enterprise cooperation can be ensured, creating favorable conditions for cultivating high-quality packaging planning and design talents.

An effective mechanism for communication and coordination should be established between schools and enterprises to ensure the effective implementation of the "dual system" talent cultivation model in the packaging planning and design major. This includes designating special liaison officers by both parties who are responsible for daily communication and coordination tasks and holding regular meetings to jointly discuss the details of talent cultivation plans, curriculum arrangements and practical teaching. For example, at the beginning of each semester, schools and enterprises should jointly formulate detailed cooperation plans and clarify their respective responsibilities and commitments in the talent cultivation process. Throughout the communication and coordination process, both parties should maintain an honest and open attitude and actively listen to and adopt each other's views and suggestions.

When problems occur, schools and enterprises should conduct detailed analysis in the first place and jointly discuss solutions. Taking the safety issue of students during internships as an example, in case of safety conditions, both parties should quickly hold an emergency meeting to jointly discuss and implement corresponding preventive strategies to ensure the safety of students. In order to improve the efficiency of communication and the transparency of information, schools and enterprises can jointly build an information sharing channel. Through this platform, both parties can update cooperation dynamics, students' internship performance and specific needs of enterprises in real time, thereby enhancing information circulation and cooperation efficiency.

(3) Optimize the curriculum system

Comprehensive optimization of the curriculum system is an important method to improve the teaching effect of the packaging planning and design major. This requires ensuring that the curriculum content is highly consistent with the latest industry trends and specific needs of enterprises, and realizing continuous update and optimization of curriculum content. Specifically, new design concepts, technological innovations and teaching methods must be integrated in a timely manner, and outdated teaching resources should be eliminated. In curriculum design, attention should be paid to the logic and integrity between courses to avoid repetition or discontinuity in content. Taking the packaging planning and design major as an example, the application of design software, the teaching of design theory and actual projects should be closely combined to ensure that students can not only be proficient in the application

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of software, but also effectively transform theoretical knowledge into actual design results. At the same time, considering students' individualized development and career planning, diversified curriculum modules should be designed to meet the specific needs of different students. For example, providing a special entrepreneurship curriculum module for those students who are interested in starting a business, and开设 academic research curriculum modules for those students who plan to continue their studies, so as to enrich students' knowledge structure and enhance their professional competitiveness.

(4) Strengthen teacher training

Schools should regularly implement plans for teachers to participate in enterprise internships and training to enhance the practical skills and professional knowledge of the teaching staff. By assigning teachers to hold actual positions in enterprises, such as sending packaging professional teachers to the design, production and sales departments of packaging and printing enterprises, teachers can deeply contact and learn the operation details, technological progress and management strategies of enterprises. Schools fully support and cooperate with teachers to participate in diverse training and academic exchange activities in order to absorb the latest teaching ideas and skills. This can be accomplished by organizing teachers to participate in international and domestic academic seminars, professional seminars and special lectures, thereby expanding teachers' educational horizons and knowledge scopes. At the same time, schools should actively invite technical experts from the forefront of enterprises and authoritative figures in the industry to come to the school for exchanges and provide professional training opportunities for teachers. With the sharing of their practical operation experience and industry cutting-edge information, help teachers improve teaching skills and professional qualities.

(5) Establish an incentive mechanism

In order to stimulate the enthusiasm of enterprises and teachers to participate in school-enterprise cooperation, an incentive mechanism should be established. At the government level, demonstration enterprises and outstanding teacher awards in the field of school-enterprise cooperation can be set up, and enterprises and teachers who perform excellently in cooperation can be publicly commended and materially rewarded. For example, enterprises that provide rich internship opportunities for schools, jointly promote scientific research projects and achieve remarkable results are awarded honorary titles and corresponding rewards. Schools should also formulate incentive measures internally and give special attention to teachers participating in school-enterprise cooperation in terms of career development, performance appraisal and honor selection. For example, teachers who perform outstandingly during their tenure in enterprises and successfully solve practical problems of enterprises will be given extra points in professional title evaluation. At the same time, by publicizing successful cases and excellent experiences of school-enterprise cooperation, a positive cooperation atmosphere can be created to attract more enterprises and teachers to join the ranks of "dual system" talent cultivation.

6. Conclusion

In the packaging planning and design major, the implementation of the school-enterprise cooperation dual-system talent cultivation model has shown positive effects, especially in enhancing students' practical skills and improving employment opportunities. Nevertheless, challenges have also been encountered in the implementation of this model, including insufficiently close school-enterprise cooperation, curriculum setting not in line with the actual needs of the industry, and insufficient construction of the teaching staff. In order to improve the overall effectiveness of the talent cultivation model, a series of measures can be implemented, such as strengthening policy support, optimizing communication and

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cooperation mechanisms, improving curriculum settings, strengthening teacher training and improving professional abilities, and building an effective incentive system. Through the implementation of these comprehensive strategies, it is expected to cultivate more talents with innovative thinking and excellent creative design skills, thereby promoting the continuous development and progress of the creative design field.

7. Fund project

1.Ministry of Education's employment-oriented education project for supply-demand docking: Research on the school-enterprise cooperation "dual system" talent cultivation model. Project number: 2023122914192.

2.2024 Vocational Education Research Project of Shandong Institute of Youth Education Science: Research on the Path Expansion and Model Innovation of Labor Education in Vocational Colleges in the New Era (24SVE168).

3. Ministry of Education Supply-Demand Matching Employment Education Project: Research on the Cultivation of Innovative Skilled Talents through the "Yanpei Specialized Order Class" Model for the Integration of Secondary and Higher Vocational Education (2023122908436).

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