Characteristic Training Mode of Applied Talents under the Condition of Internet +

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Abstract: With the advent of the internet+era, the cultivation of applied talents has become a top priority for higher education. The purpose of this paper is to explore the characteristic training mode of applied talents under the condition of internet+, so as to adapt to the rapidly changing social and industrial needs. Through in-depth analysis of the demand for applied talents in the internet+era, we find that its core characteristics include solid professional skills, interdisciplinary comprehensive literacy, innovative thinking and entrepreneurial ability. Therefore, this paper puts forward a series of design principles of training mode, including project-driven and practice-oriented, interdisciplinary integration, and strengthening innovation and entrepreneurship education. These principles together build a comprehensive, practical and innovative training system for applied talents. The paper also emphasizes the importance of continuous improvement and feedback mechanism to ensure that the training mode is consistent with the actual needs. Finally, looking forward to the future, this paper calls for continuous innovation in the training mode of applied talents in the constantly developing social and technological environment, so as to cultivate more creative and entrepreneurial talents and provide strong support for social innovation and development.

1. Introduction

With the rapid development of the Internet, all industries around the world are undergoing profound changes. The arrival of internet+era not only promotes the upgrading of industrial structure, but also puts forward higher requirements for talent training mode. In this era full of opportunities and challenges, it has become an urgent task for higher education to cultivate applied talents who adapt to internet+conditions.

Under the condition of internet+, traditional industries are constantly transforming into digitalization and intelligence, so the demand for applied talents is more urgent[1]. Applied talents need not only solid professional knowledge, but also interdisciplinary comprehensive literacy, which can adapt to the rapidly changing technology and market demand. Therefore, it is necessary to explore a characteristic training mode for applied talents that adapts to the internet+era[2-3].

This paper will first analyze the demand characteristics of applied talents under the internet+condition, then discuss the shortcomings of the existing talent training mode, and finally put forward a new training mode in order to better meet the social demand for applied talents in the internet+era. Through in-depth study of the training mode of applied talents in the internet+era, we can provide more scientific, flexible and innovative educational methods for universities and related educational institutions, and cultivate applied talents that meet the requirements of the times for society. This is also an important step to meet the needs of social development and promote the reform of higher education.

2. Demand analysis of applied talents under the condition of internet+

The technology in the internet+era is changing with each passing day. The emergence of emerging technologies, from artificial intelligence to the Internet of Things to blockchain, has put

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forward higher requirements for the technical level of applied talents. For example, the field of artificial intelligence needs applied talents with technologies such as deep learning and natural language processing, while the field of Internet of Things needs talents in sensor technology and data analysis. Under the condition of internet+, a single professional knowledge can no longer satisfy the solution of complex problems. Applied talents need to have interdisciplinary comprehensive literacy and be able to understand and coordinate knowledge in many fields [4]. For example, when developing intelligent health applications, an applied talent needs to know information technology, user experience design and other fields besides medical knowledge. In the internet+era, innovation is emphasized, and applied talents should have innovative ability, be able to find opportunities in the ever-changing market and respond quickly. Entrepreneurial ability has also become an important factor, because many emerging fields need adventurous and creative talents. For example, creating new digital payment methods or developing smart city solutions requires applied talents to have the ability of innovation and entrepreneurship.

Application-oriented talents first need to have solid professional skills and knowledge to cope with the complex and ever-changing technical environment. This may include programming skills, data analysis, network security and other technical requirements. For example, in the field of cloud computing, applied talents need to be proficient in cloud service technology and can provide efficient solutions for enterprises. The market has put forward higher requirements for applied talents. They not only need to have technical ability, but also need to understand the market demand and be able to respond flexibly to market changes. For example, the e-commerce industry needs to understand user behavior analysis and marketing strategies for applied talents in order to better promote the digital transformation of enterprises.

3. Evaluation and challenge of existing talent training mode

3.1. Advantages and disadvantages of traditional talent training mode

The traditional talent training mode is usually based on disciplines, and students can systematically master one or more professional knowledge through systematic professional courses[5-6]. For example, in the traditional computer science major, students will systematically learn relevant knowledge such as algorithms, data structures and operating systems in the course, and establish a solid professional foundation. The curriculum and teaching system of traditional talent training mode are relatively stable, which can provide students with a relatively stable learning environment. This helps students to study professional knowledge in depth in a limited time and form a relatively complete subject system. For example, the traditional training mode of medical specialty trains students into skilled medical professionals with certain clinical skills. Graduates of the traditional talent training mode can usually get higher industry recognition. Because of its strong systematicness and clear professionalism, it is easier for enterprises to understand and accept talents trained by tradition. For example, in the engineering field, engineers trained by traditional engineering majors are usually favored by enterprises.

The traditional talent training mode is relatively inflexible and can't quickly adapt to the rapid changes in technology and industry. Due to the relatively long renewal period of professional courses, students may not be able to obtain the latest industry knowledge and technology in time. For example, in the field of computer science, emerging programming languages and technologies may not be fully covered in traditional courses[7-8].

In the internet+era, interdisciplinary ability has become particularly important, and the traditional training mode may make students lack the overall view and comprehensive problem-solving ability. For example, in the smart city project, not only computer professional knowledge is needed, but also interdisciplinary abilities such as urban planning are needed. The traditional talent training mode pays more attention to the teaching of theoretical knowledge, but the training of practical application experience is relatively insufficient. As a result, some graduates may face the maladjustment of actual work when they enter the workplace. For example, in the marketing major, the traditional training mode may involve less actual market research and marketing strategy

practice.

3.2. Challenges under the condition of internet+

In the internet+era, the speed of technology update is extremely fast, and emerging technologies such as artificial intelligence and blockchain are constantly emerging. This makes practitioners need to constantly learn and adapt to new technologies, and the traditional training model may not meet the needs of students and practitioners for the latest technologies. For example, in the field of artificial intelligence, the emergence of new algorithms and models may subvert the traditional application methods in a short time and put forward higher learning and application requirements for practitioners. Many traditional industries are facing the pressure of digital transformation, which requires practitioners to have the application ability of new technologies. However, practitioners in many industries may lack the application experience of digital tools and technologies because of the limitation of traditional training mode[9]. For example, in the traditional manufacturing industry, in order to realize intelligent manufacturing, workers need to master new technologies such as the Internet of Things and big data analysis, which puts forward higher transformation requirements for traditional industrial practitioners.

In the internet+era, problems are often no longer solved by a single discipline, but require the integration of knowledge from different disciplines. The traditional division of disciplines may make students lack the overall view and interdisciplinary thinking when solving practical problems. For example, in the planning of smart cities, it is necessary to combine the knowledge of urban planning, information technology, sociology and other disciplines, and the traditional training model may not meet this interdisciplinary requirement. Cross-disciplinary projects are increasing day by day, and the complexity of these projects requires participants to have multi-disciplinary knowledge background and ability. For example, the development of an intelligent medical device may require the integration of medical professional knowledge, engineering technology, information technology and other fields, which puts higher demands on the comprehensive literacy of practitioners.

In the internet+era, the cooperation between enterprises and schools has become closer. However, due to the gap between the traditional training mode and the actual needs, enterprises often need to train new employees, resulting in certain cost and efficiency losses. For example, in the field of software development, there may be a gap between what students have learned in school and the abilities required by actual projects, and enterprises may need to provide more training opportunities for new employees.

4. Design of new training mode for applied talents

4.1. Project-driven teaching mode

In the internet+era, traditional theoretical teaching has been unable to meet the needs of students to meet practical work challenges[10]. The project-driven teaching mode emphasizes putting students in the actual project environment and improving their practical application ability by personally participating in solving real problems. For example, in computer science major, students can learn software engineering practice by participating in the development of an actual software application, including requirements analysis, design, coding, testing and other links (Figure 1). Project-driven teaching allows students to participate in the whole project life cycle, from demand analysis, design to implementation, and cultivates students' all-round ability. In the course of architectural design, students can experience the whole process from scheme conception to field construction by participating in actual architectural projects.

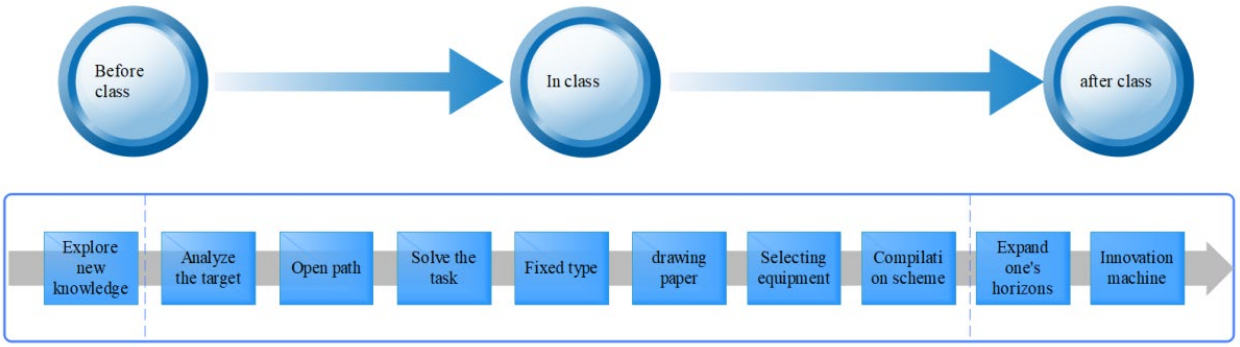

Figure 1 Teaching strategy

Project-driven teaching mode focuses on solving practical problems, so that students can better understand the application of theoretical knowledge. In the course of environmental science, students can collect and analyze data by carrying out environmental monitoring projects, so as to better understand the relationship between theory and practice of environmental science. The project-driven model promotes the knowledge integration of different disciplines and enables students to set foot in multiple disciplines in the project. For example, in the course of intelligent transportation system design, students need to know not only computer science knowledge, but also traffic engineering, urban planning and other fields.

Project-driven teaching mode provides a practical platform for students and cultivates their innovative thinking in solving problems. In the course of entrepreneurship management, students can exercise the vision and judgment of entrepreneurs by simulating enterprise operation projects. Project-driven model provides students with opportunities to cooperate with enterprises, and organically combines academic theory with actual industrial needs. For example, in marketing practice projects, students can cooperate with real enterprises, provide them with services such as market research and promotion strategies, and gain practical project experience.

Project-driven teaching mode emphasizes practical results, and students' performance is not only evaluated through exams, but also through the actual results and implementation effects of the project. In the course of new media design, students complete real design projects, and the final design works become part of their academic performance. Teachers play the role of mentors in the project-driven mode, guiding students' projects through real-time feedback. This kind of real-time feedback makes the teaching process more flexible and can adjust the teaching direction in time according to the actual situation of students. For example, in the innovation and entrepreneurship practice project, students can adjust their business plan in time according to the feedback from their tutors, so as to improve the implementation effect of the project.

4.2. Interdisciplinary integration curriculum system

Interdisciplinary integration curriculum system focuses on integrating the knowledge of different disciplines into projects, and driving students' learning through comprehensive projects. For example, in the course of sustainable urban planning, students not only learn the basic knowledge of urban planning, but also need to combine environmental science, sociology, economics and other multidisciplinary knowledge to jointly plan a sustainable urban project (Figure 2).

The interdisciplinary integration curriculum system promotes teachers' joint teaching among disciplines, and students learn interdisciplinary knowledge through teamwork. For example, in the digital medical innovation project, teachers majoring in computer science and teachers majoring in medicine jointly guide students and help them integrate the knowledge of medicine and computer science to realize digital medical innovation. Through the comprehensive curriculum, students can cross multiple disciplines. For example, design a course "Digital Innovation and Social Impact", which includes the contents of computer science, sociology, business management and other disciplines. Students can choose a certain number of cross-disciplinary professional elective courses in the interdisciplinary integration curriculum system to expand their knowledge. In a interdisciplinary course system of data science and art design, students can choose optional courses

of art design to understand the combination of art creation process and data science.

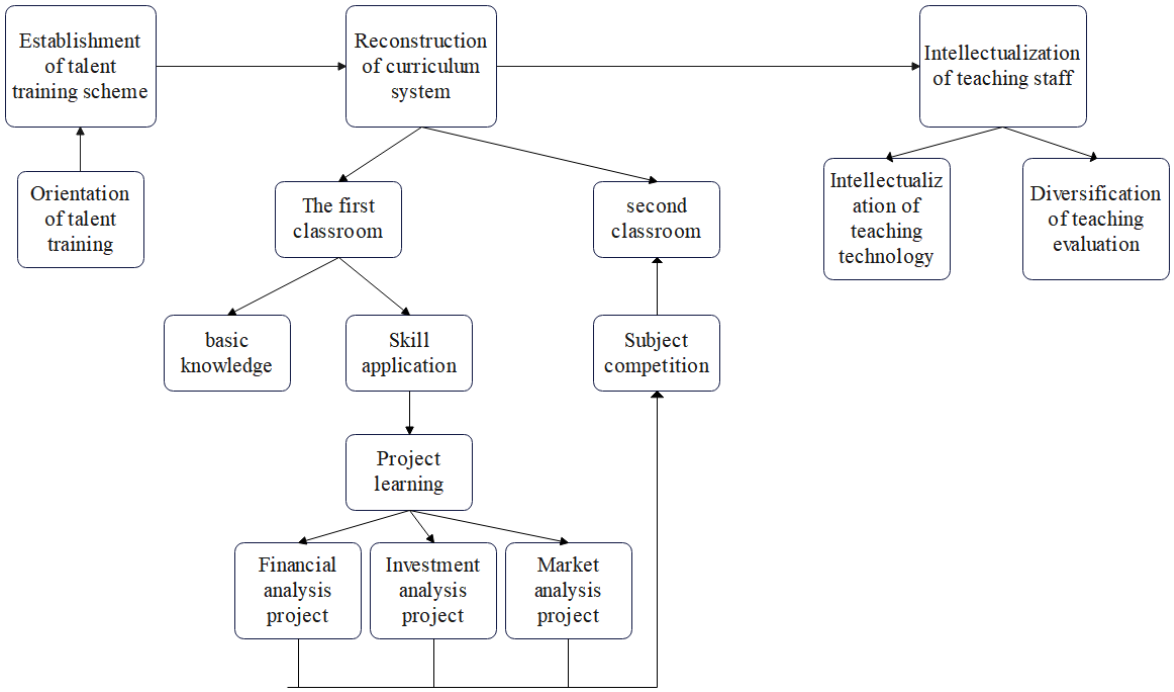

Figure 2 Interdisciplinary integration curriculum system

4.3. Deepening of innovation and entrepreneurship education

The deepening of innovation and entrepreneurship education has the potential to cultivate students' innovative thinking and problem-solving abilities through interdisciplinary cooperative project practice. By introducing challenging and innovative projects, students can encounter real-world market problems and collaborate in teams to find solutions. Furthermore, this approach to education can provide students with professional entrepreneurship guidance through the implementation of an entrepreneurship tutor system. Successful entrepreneurs, industry experts, or investors can serve as mentors, sharing their experiences to help students gain a better understanding of the entrepreneurial process and enhance their own entrepreneurial skills.

Moreover, establishing an entrepreneurial practice base is essential to providing students with practical scenarios of entrepreneurship. For instance, a business incubation center on campus can offer office space, resource support, and guidance from mentors, enabling students to engage more effectively in entrepreneurial endeavors. Additionally, integrating corporate culture into innovation and entrepreneurship teaching can assist students in gaining a deeper understanding of the realities of the entrepreneurial world.

Lastly, organizing entrepreneurial events and competitions presents an excellent opportunity for students to showcase their innovative projects and receive valuable feedback. Such initiatives not only foster a culture of innovation and creativity but also prepare students for the rigors and challenges of the entrepreneurial landscape. For example, an entrepreneurship competition is held once a year, and a professional jury is invited to evaluate students' entrepreneurial plans and provide opportunities for investment and support.

5. Conclusions

In the internet+era, the cultivation of applied talents has become an important task of higher education. Through in-depth analysis of the demand for applied talents in the internet+era, we find that its core characteristics not only include solid professional skills and knowledge, but also emphasize interdisciplinary comprehensive literacy, innovative thinking and entrepreneurial ability. In the internet+era, applied talents need to have the ability to adapt to rapid technical iteration, the team spirit of interdisciplinary cooperation, and the innovative and entrepreneurial ability to find

opportunities and solve problems in uncertainty. The characteristic training mode of applied talents in the internet+era should establish a continuous improvement mechanism, collect feedback from students and enterprises in time, adjust the training plan, and ensure that the training mode is consistent with the actual needs. Through the performance indicators such as students' employment situation and entrepreneurial achievements, the training mode is continuously optimized to adapt to the changing social and industrial environment. In the future, with the continuous development of science and technology and social changes, the cultivation of applied talents in the internet+era will face more new challenges and opportunities. The characteristic training mode of applied talents needs continuous innovation, closer integration with the industry, attention to the cultivation of students' innovative ability, and more outstanding talents with creativity and entrepreneurial spirit, so as to make greater contributions to social development and innovation.

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